

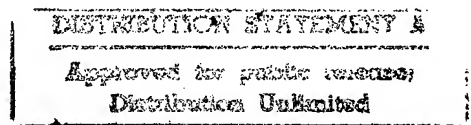
RESULTS OF THE FEASIBILITY ANALYSES PERFORMED
AT INDIAN HEAD DIVISION, NAVAL SURFACE WARFARE CENTER,
TO DEVELOP OPTIMUM VALUE POLLUTION PREVENTION ALTERNATIVES

VOLUME II

APPENDICES A - E



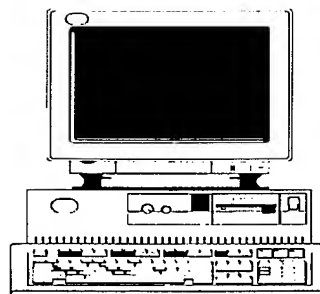
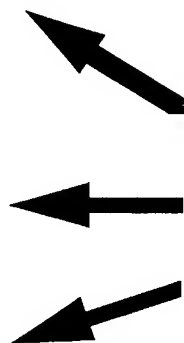
A. F. Meyer and Associates, Inc.



Pollution Prevention
Priority Number
Analysis

Benefit/Cost Ratio
Analysis

Optimum Value
Pollution Prevention
Alternatives

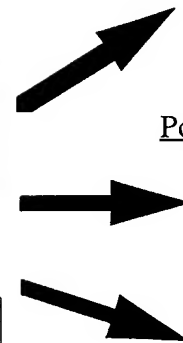


Hazardous Substance
Management System

Pollution Prevention System

- 1) NAVFAC P-442
Economic Analysis
Model
- 2) Hazardous Material
Substitution Process

Market Availability
Studies



AFMADOC-5/96-2603-55

**RESULTS OF THE FEASIBILITY ANALYSES PERFORMED
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VOLUME II

APPENDICES A - E

22 May 96



Project Officer:
Bob Law, Code 4241
U. S. Navy
Naval Supply Systems Command
1931 Jefferson Davis Highway
Arlington, Virginia 22241-5360

DTIC QUALITY INSPECTED 4

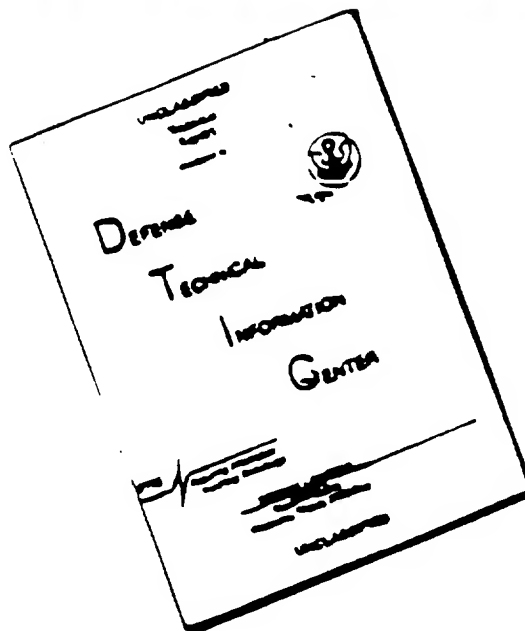
A&E Contract No: N62470-94-D-2392

Prime Contractor:
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Herndon, Virginia 22070-5225

Subcontractor:
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19970213 070

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APPENDIX A
SITE SURVEY CHECKLISTS

Site Survey Checklist

1. Building Number: 292
2. Contact: Mike Sawchak
3. Phone: (202) 743-4771
4. Date: 4 January 1996
5. Process: Mold Assembly, MK-128 JATO - Cleaning and Treating Endformers
6. HM/HW: SS-4004 Silicone Primer
7. Manufacturer: General Electric Co., Silisone Products Dept.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 8030-00-123-6955
10. Chemical Constituents and CAS #: n-Butyl Alcohol - 71-36-3, Acetone - 67-64-1, Isopropyl Alcohol - 67-63-0, Toluene - 108-88-3, Ethyl Silicate - 78-10-4
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 0.11 gallons
13. Where and how much HM is stored? N/K
14. Describe how the HW is disposed of: The silicone primer evaporates
15. Type of release to the environment: 100% fugitive emissions
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and organic vapor respirator
19. Exposure time to HM/HW: 10 hours per month
20. Number of employees: 2
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 292
2. Contact: Mike Sawchak
3. Phone: (202) 743-4771
4. Date: 4 January 1996
5. Process : Mold Assembly, MK-128 JATO - Application of Release Agents to Warheads
6. HM/HW: MS-143 Fluorocarbon Release Agent
7. Manufacturer: Miller-Stephenson Chemical Co.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 9150-00-F00-5302
10. Chemical Constituents and CAS #: 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113) - 76-13-1
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 0.11 gallons
13. Where and how much HM is stored? N/K
14. Describe how the HW is disposed of: The release agent evaporates
15. Type of release to the environment : 100% fugitive emissions
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and organic vapor respirator
19. Exposure time to HM/HW: 6 hours per month
20. Number of employees: 2
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 720
2. Contact: Ricke Sony
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Inspection/Rework of Rocket Motors
6. HM/HW: Adhesive, Parts A and B
7. Manufacturer: Armstrong Products Company
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 8040-00-455-9366
10. Chemical Constituents and CAS #: R,4-Isopropylidenediphenol-Epichlorohydrin Resin - N/K, Polyamide Resin - N/K
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 0.2 gallons
13. Where and how much HM is stored? N/K
14. Describe how the HW is disposed of: N/K
15. Type of release to the environment : N/K
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and 3M easy care respirator with organic vapor cartridge
19. Exposure time to HM/HW: 2 hours per month
20. Number of employees: 4
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 160
2. Contact: Alvin Jenkins
3. Phone: (202) 743-4879
4. Date: 4 January 1996
5. Process : Cartridge Activated Device (CAD) Rework
6. HM/HW: Acetone
7. Manufacturer: Mallinckordt Chemical, Inc.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 6810-01-317-6090
10. Chemical Constituents and CAS #: Acetone - 67-64-1
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 1.5 gallons
13. Where and how much HM is stored? N/K
14. Describe how the HW is disposed of: Dirty rags are taken to the Strauss Avenue Thermal Treatment Facility
15. Type of release to the environment : 50% fugitive emissions; 50% on-site treatment
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and organic vapor respirator
19. Exposure time to HM/HW: 80 hours per month
20. Number of employees: 5
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 720
2. Contact: Ricke Sony
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Inspection/Rework of Rocket Motors
6. HM/HW: Acetone
7. Manufacturer: Mallinckrodt Chemical, Inc.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 6810-01-317-6090
10. Chemical Constituents and CAS #: Acetone - 67-64-1
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 0.1 gallon
13. Where and how much HM is stored? N/K
14. Describe how the HW is disposed of: Waste rags are sent to the Strauss Avenue Treatment Facility
15. Type of release to the environment : 100% fugitive emissions
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and 3M easy care respirator with organic vapor cartridge
19. Exposure time to HM/HW: 1 hour per month
20. Number of employees: 4
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 1040
2. Contact: Wayne Thomas
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Solvent Tank Cleaning of Molds and Motor Parts
6. HM/HW: Acetone
7. Manufacturer: Mallinckrodt Chemical, Inc.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 6810-01-317-6090
10. Chemical Constituents and CAS #: Acetone - 67-64-1
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 37.5 gallons
13. Where and how much HM is stored? 2 - 55 gallon drums are stored in Building 715
14. Describe how the HW is disposed of: The waste is drained into drums and sent to the Strauss Avenue Thermal Treatment Facility
15. Type of release to the environment : 25% point source emission; 75% on-site treatment
16. Describe how spills are handled: A spill kit is located outside
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and chemical goggles
19. Exposure time to HM/HW: 4 hours per month
20. Number of employees: 1
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 715
2. Contact: Tod Ricks
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Manufacture (Wrapping) of Vandal Beakers
6. HM/HW: Acetone
7. Manufacturer: Mallinckrodt Chemical, Inc.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: 6810-01-317-6090
10. Chemical Constituents and CAS #: Acetone - 67-64-1
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 40 gallons
13. Where and how much HM is stored? 2 - 55 gallon drums are stored in a room adjacent to the building; the acetone is pumped into the building through pipes
14. Describe how the HW is disposed of: The acetone either evaporates or is reused
15. Type of release to the environment: 100% point source emission
16. Describe how spills are handled: A spill kit is located in the shop
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and organic vapor respirator
19. Exposure time to HM/HW: 12 hours per month
20. Number of employees: 3
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 1190
2. Contact: Jean Gilles
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Cleaning of Mix Bowl
6. HM/HW: Toluene
7. Manufacturer: Ashland Chemical Company
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: N/K
10. Chemical Constituents and CAS #: Toluene - 108-88-3
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 120 gallons
13. Where and how much HM is stored? 2 - 55 gallon drums are stored in an outdoor shed
14. Describe how the HW is disposed of: Dirty rags are put into double-walled plastic bags, placed in a cardboard box and are sent to the Strauss Avenue Thermal Treatment Facility
15. Type of release to the environment: N/K
16. Describe how spills are handled: A spill kit is located in a back room in the shop
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, and half-face respirators equipped with organic vapor cartridges
19. Exposure time to HM/HW: 1 hour per month
20. Number of employees: 3
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 1190
2. Contact: Jean Gilles
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process: Daily Cleanup of Mix Blades
6. HM/HW: Toluene
7. Manufacturer: Ashland Chemical Company
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: N/K
10. Chemical Constituents and CAS #: Toluene - 108-88-3
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 1 gallon
13. Where and how much HM is stored? 2 - 55 gallon drums are stored in an outdoor shed
14. Describe how the HW is disposed of: Dirty rags are put into double-walled plastic bags, placed in a cardboard box and are sent to the Strauss Avenue Thermal Treatment Facility
15. Type of release to the environment: N/K
16. Describe how spills are handled: A spill kit is located in a back room in the shop
17. How many reportable spills have occurred in the past year? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, butyl rubber gloves, and an airline respirator
19. Exposure time to HM/HW: 1 hour per month
20. Number of employees: 4
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 1041
2. Contact: Todd Ricks
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process: Cleaning of Cast Tooling
6. HM/HW: Toluene
7. Manufacturer: Ashland Chemical Company
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: N/K
10. Chemical Constituents and CAS #: Toluene - 108-88-3
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): 120 gallons
13. Where and how much HM is stored? Stored in Building 1787 in a 55 gallon drum
14. Describe how the HW is disposed of: Waste is mixed with sawdust and taken to the Strauss Avenue Treatment Facility
15. Type of release to the environment: 7% point source emission; 93% on-site treatment
16. Describe how spills are handled: A spill kit is located in the shop
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Cotton overalls, cotton gloves, safety glasses, conductive shoes, cotton cap or hardhat, rubber gloves, rubber aprons, chemical goggles, and half-face respirators equipped with organic vapor cartridges
19. Exposure time to HM/HW: 4 hours per month
20. Number of employees: 2
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? N/A

Site Survey Checklist

1. Building Number: 715
2. Contact: Tod Ricks
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Paint/Stencil/Packout Vandal Chambers
6. HM/HW: Miscellaneous low VOC paints
7. Manufacturer: Various
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN: Various
10. Chemical Constituents and CAS #: Various
11. Are MSDSs available? ☒ YES ☐ NO
12. Quantity/Amount per month (include units): N/K
13. Where and how much HM is stored? Flammable lockers in one gallon containers in the shop
14. Describe how the HW is disposed of: Waste paint, brushes and rags are sent to the Property of Disposal Office and a contractor picks them up
15. Type of release to the environment: Toluene - 100% point source emission; Acetone - 90% transfer off-site, 9.98% fugitive emissions, 0.02% point source emission
16. Describe how spills are handled: A spill kit is located in another room in the shop
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Goggles, gloves, organic vapor respirator, and coveralls
19. Exposure time to HM/HW: 10 hours per month
20. Number of employees: 2
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually; Standard Operating Procedure (SOP) training annually; SOP training initially and every two years for area certification; respirator training annually
22. What contractors are used and how often? ChemWaste, a private company contracted through the Defense Reutilization and Marketing Office

Site Survey Checklist

1. **Building Number:** 715
2. **Contact:** Tod Ricks
3. **Phone:** (301) 743-4771
4. **Date:** 4 January 1996
5. **Process :** Motor Paint, MK 37 ASROC
6. **HM/HW:** Miscellaneous thinners, primers and paints
7. **Manufacturer:**
 - a. Thinners - Various
 - b. Primer - PPG Industries, Inc.
 - c. Paints - Various
8. **Supplier:** Naval Surface Warfare Center, Indian Head Division Supply Department
9. **NSN:**
 - a. Various
 - b. 8010-00-F00-0319
 - c. Various
10. **Chemical Constituents and CAS #:**
 - a. Various
 - b. Silica, Amorphous-Fumed - 7631-86-9; Magnesium Silicate - 14807-96-6; Aluminum Silicate - 1332-58-7; 1-Methoxy-2-Propanol - 107-98-2; Isopropyl Alcohol, Anhydrous - 67-63-0; Ethyl Alcohol - 64-17-5; Deionized Water - 7732-18-5; Light Aliphatic Solvent Naphtha - 64742-89-8
 - c. Various
11. **Are MSDSs available?** ☒ YES ☐ NO
12. **Quantity/Amount per month (include units):** 10 gallons
13. **Where and how much HM is stored?** Flammable lockers in one gallon containers in the shop
14. **Describe how the HW is disposed of:** Waste paint, brushes and rags are sent to the Property of Disposal Office and a contractor picks them up
15. **Type of release to the environment:** Toluene - 100% point source emission; Acetone - 100% point source emission
16. **Describe how spills are handled:** A spill kit is located in another room in the shop
17. **How many reportable spills have occurred in the past year ?** There have been no spills to their knowledge
18. **Is PPE required?** ☒ YES ☐ NO
If YES, describe: Goggles, gloves, organic vapor respirator, and coveralls

Site Survey Checklist

19. Exposure time to HM/HW: 10 hours per month
20. Number of employees: 2
21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually;
Standard Operating Procedure (SOP) training annually; SOP training initially and every two
years for area certification; respirator training annually
22. What contractors are used and how often? ChemWaste, a private company contracted through
the Defense Reutilization and Marketing Office

Site Survey Checklist

1. Building Number: 715
2. Contact: Tod Ricks
3. Phone: (301) 743-4771
4. Date: 4 January 1996
5. Process : Thruster Paint, MK 37 ASROC
6. HM/HW: Miscellaneous low VOC paints and primer
7. Manufacturer:
 - a. Paint - Randolph Products Co.
 - b. Primer - Randolph Products Co.
8. Supplier: Naval Surface Warfare Center, Indian Head Division Supply Department
9. NSN:
 - a. 8010-00-526-2523
 - b. N/K
10. Chemical Constituents and CAS #:
 - a. Toluene - 108-88-3, Methyl Isobutyl Ketone - 108-10-1, Ethyl Acetate - 141-78-6, n-Butyl Alcohol - 71-36-3, Zinc Chromate - 13530-65-9, Nitrocellulose - 9004-70-0
 - b. N/K
11. Are MSDSs available? Yes for paint; no for primer
12. Quantity/Amount per month (include units): 1 gallon
13. Where and how much HM is stored? Flammable lockers in one gallon containers in the shop
14. Describe how the HW is disposed of: Waste paint, brushes and rags are sent to the Property of Disposal Office and a contractor picks them up
15. Type of release to the environment: N/K
16. Describe how spills are handled: A spill kit is located in another room in the shop
17. How many reportable spills have occurred in the past year ? There have been no spills to their knowledge
18. Is PPE required? ☒ YES ☐ NO
If YES, describe: Goggles, gloves, organic vapor respirator, and coveralls
19. Exposure time to HM/HW: 10 hours per month
20. Number of employees: 2

Site Survey Checklist

21. Are personnel who handle HM/HW trained? ☒ YES ☐ NO
If YES, describe the type and regularity: Safety and environmental training annually;
Standard Operating Procedure (SOP) training annually; SOP training initially and every two
years for area certification; respirator training annually
22. What contractors are used and how often? ChemWaste, a private company contracted through
the Defense Reutilization and Marketing Office

APPENDIX B

THE NAVFAC P-442 ECONOMIC ANALYSIS MODEL

PERSONAL PROTECTIVE EQUIPMENT COSTS

	pair/each	dozen
GLOVES:		
rubber coated/plastic	2.50	29.95
neoprene	3.15	37.80
nitrile	1.50	17.95
solvent impermeable	1.35	16.20
FACE/EYE PROTECTION:		
plastic goggles	2.60	31.20
rubber goggles	2.60	31.20
full face shield & bracket	7.30	87.60
safety glasses	5.00	60.00
RESPIRATORS:		
NIOSH apprvd orgnc vpr crtrdg	12.25	147.00
SCBA	19.57	234.84
MSHA approved respirator	20.48	245.76
NIOSH/MSHA aprvd air purfyng	20.48	245.76
Dust respirator	14.90	178.80
CLOTHING:		
impermeable aprons	8.70	104.40
solvent resistant boots	14.39	172.68
side shields	0.42	5.04
gas mask w cartridge/canister	240.00	2880.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

SILICONE PRIMER

Building 292 - Cleaning and Treating Endformers

Quantity Used: 1.32 gallons/year
Exposure Time: 120 hours/year

Status Quo Alternative: SS-4004 Silicone Primer

12 pairs of safety glasses 60.00
Total Price 60.00

Proposed Alternative: 1204 Primer

4 NIOSH approved organic vapor cartridge respirators 49.00
12 pairs of plastic goggles 31.20
Total Price 80.20

Proposed Alternative: 1200 RTV Primer

4 NIOSH approved organic vapor cartridge respirators 49.00
12 pairs of rubber gloves 29.95
12 pairs of safety glasses 60.00
Total Price 138.95

Proposed Alternative: All Purpose Primer

None Listed
Total Price 0.00

Proposed Alternative: Norsil Silicone Primer

4 NIOSH approved organic vapor cartridge respirators 49.00
12 pairs of rubber gloves 29.95
12 pairs of plastic goggles 31.20
Total Price 110.15

RELEASE AGENT

Building 292 - Application of Release Agent to Warheads

Quantity Used: 1.32 gallons/year
Exposure Time: 72 hours/year

Status Quo Alternative: MS-143 Fluorocarbon Release Agent

48 pairs of neoprene gloves 151.20
12 pairs of plastic goggles 31.20
Total Price 182.40

Proposed Alternative: 1-2531 Release Coating

4 NIOSH approved organic vapor cartridge respirators 49.00
12 pairs of safety glasses 60.00
Total Price 109.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: Camie #A1000 Dry Lubricant	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00
Proposed Alternative: MS-143N Release Agent/Dry Lubricant	
Neoprene gloves and chemical splash goggles are recommended, but not required	
Total Price	0.00
Proposed Alternative: MS-122N/CO2 TFE Release Agent/Dry Lubricant	
Neoprene gloves and chemical splash goggles are recommended, but not required	
Total Price	0.00
Proposed Alternative: MS-136N/CO2 Release Agent - Hot Mold	
Neoprene gloves and chemical splash goggles are recommended, but not required	
Total Price	0.00
Proposed Alternative: Spectrum Release W.B.	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
12 side shields	5.04
Total Price	205.04
Proposed Alternative: Release #1 VOC	
4 NIOSH approved organic vapor cartridge respirators	49.00
12 pairs of plastic goggles	31.20
Total Price	80.20
Proposed Alternative: Release All Safelease 30	
4 NIOSH approved organic vapor cartridge respirators	49.00
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
48 pairs of rubber gloves	119.80
Total Price	233.84

Figure B-1
Personal Protective Equipment Assumptions and Costs

ADHESIVES

Building 720 - Inspection/Rework of Rocket Motors

Quantity Used: 2.4 gallons/year
Exposure Time: 24 hours/year

Status Quo Alternative: A-12 Parts A and B Adhesive

24 pairs of rubber gloves	59.90
4 pairs of plastic goggles	10.40
Total Price	70.30

Proposed Alternative: Pliobond 20

2 NIOSH/MSHA approved air purifying respirators	40.96
24 pairs of rubber gloves	59.90
4 pairs of safety glasses	20.00
Total Price	120.86

Proposed Alternative: 3M Spray Trim

None Listed	
Total Price	0.00

Proposed Alternative: PSI-601 Silicone Sealant and PSI-690 Primer

2 NIOSH approved organic vapor cartridge respirators	24.50
24 pairs of plastic gloves	59.90
4 pairs of safety glasses	20.00
Total Price	104.40

Proposed Alternative: MMM-A-1058A Adhesive, PC-NAPCO

4 pairs of plastic goggles	10.40
Total Price	10.40

Proposed Alternative: EPK 0151, Parts A and B

24 pairs of rubber gloves	59.90
4 pairs of plastic goggles	10.40
Total Price	70.30

Proposed Alternative: Unsaturated Polyester Resin

2 NIOSH approved organic vapor cartridge respirators	24.50
24 pairs of solvent impermeable gloves	32.40
4 pairs of safety glasses	20.00
Total Price	76.90

Proposed Alternative: A-1177-B Two Part Epoxy

24 pairs of neoprene gloves	75.60
4 pairs of plastic goggles	10.40
Total Price	86.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: PSI-631 Silicone Sealant	
2 Self-Contained Breathing Apparatus respirators	39.14
24 pairs of plastic gloves	59.90
4 pairs of safety glasses	20.00
Total Price	119.04
 Proposed Alternative: PSI-322 Clear & FD Clear Epoxy Gel, Parts A and B	
24 pairs of plastic gloves	59.90
4 pairs of safety glasses	20.00
Total Price	79.90
 Proposed Alternative: PSI-367 Part A and B Epoxy Paste	
24 pairs of plastic gloves	59.90
4 pairs of safety glasses	20.00
Total Price	79.90
 Proposed Alternative: PSI-613 High Temperature Silicone Sealant	
2 NIOSH approved organic vapor cartridge respirators	24.50
24 pairs of plastic gloves	59.90
4 pairs of plastic goggles	10.40
Total Price	94.80
 Proposed Alternative: General Purpose Adhesive Spray	
2 NIOSH approved organic vapor cartridge respirators	24.50
24 pairs of nitrile gloves	35.90
4 pairs of plastic goggles	10.40
3 impermeable aprons	26.10
Total Price	96.90
 Proposed Alternative: L-6261 GSA Adhesive	
2 Self-Contained Breathing Apparatus respirators	39.14
24 pairs of nitrile gloves	35.90
4 pairs of plastic goggles	10.40
Total Price	85.44

Figure B-1
Personal Protective Equipment Assumptions and Costs

ACETONE

Building 720 - Inspection/Rework of Rocket Motors
Building 160 - Cartridge Activated Device Remanufacture

Quantity Used: 1.2 gallons/year at bldg. 720
18 gallons/year at bldg. 160

Exposure Time: 12 hours/year at bldg. 720
960 hours/year at bldg. 160

Status Quo Alternative: Acetone

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of solvent impermeable gloves	16.20
6 pairs of plastic goggles	15.60
2 impermeable aprons	17.40
Total Price	61.45

Proposed Alternative: Finger Lakes ID/4R, P/N/-FLSC-98

1 NIOSH approved organic vapor cartridge respirator	12.25
Total Price	12.25

Proposed Alternative: 3-D Degreaser, P/N/-FLSC-97

12 pairs of solvent impermeable gloves	16.20
Total Price	16.20

Proposed Alternative: Safe Stuff Limonene Cleaner, P/N-FLSC-75

None Required	
Total Price	0.00

Proposed Alternative: Nature-Sol 100

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of rubber gloves	29.95
6 pairs of plastic goggles	15.60
Total Price	57.80

Proposed Alternative: Brulin SD 1291

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of rubber gloves	29.95
6 pairs of plastic goggles	15.60
Total Price	57.80

Proposed Alternative: Safety Prep, FD 080

12 pairs of rubber gloves	29.95
Total Price	29.95

Figure B-1
Personal Protective Equipment Assumptions and Costs

ACETONE

Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts
Building 715 - Manufacture (Wrapping) of Vandal Beakers

Quantity Used: 450 gallons/year at bldg. 1040
480 gallons/year at bldg. 715

Exposure Time: 48 hours/year at bldg. 1040
144 hours/year at bldg. 715

Status Quo Alternative: Acetone

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: Finger Lakes ID/4R, P/N/-FLSC-98

4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Proposed Alternative: 3-D Degreaser, P/N/-FLSC-97

48 pairs of solvent impermeable gloves	64.80
Total Price	64.80

Proposed Alternative: Safe Stuff Limonene Cleaner, P/N/-FLSC-75

None Required	
Total Price	0.00

Proposed Alternative: Nature-Sol 100

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Brulin SD 1291

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Safety Prep, FD 080

48 pairs of rubber gloves	119.80
Total Price	119.80

Figure B-1
Personal Protective Equipment Assumptions and Costs

TOLUENE

Building 1190 - Cleaning of Mix Bowl

Building 1041 - Cleaning of Cast Tooling

Quantity Used: 1440 gallons/year
Exposure Time: 12 hours/year at bldg. 1190; 48 hours/year at bldg. 1041

Status Quo Alternative: Toluene, Ashland Chemical Company

4 Self Contained Breathing Apparatus	78.28
48 pairs of nitrile rubber gloves	71.80
12 pairs of safety glasses	60.00
Total Price	210.08

Proposed Alternative: Klean-Green Cleaning Solvent

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
4 impermeable aprons	34.80
Total Price	208.60

Proposed Alternative: Klean-Strip Mil-Klean

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
4 impermeable aprons	34.80
Total Price	208.60

Proposed Alternative: Klean-Green Toluene/Xylene Sub

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
4 impermeable aprons	34.80
Total Price	208.60

Proposed Alternative: Hurrifsafe 9040 Special Formula

None Listed	
Total Price	0.00

Proposed Alternative: FC056 Citra Safe

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of nitrile gloves	71.80
12 pairs of safety glasses	60.00
Total Price	180.80

Proposed Alternative: Safety Prep, FD 080

48 pairs of rubber gloves	119.80
Total Price	119.80

Figure B-1
Personal Protective Equipment Assumptions and Costs

TOLUENE

Building 1190 - Daily Cleanup of Mix Blades

Quantity Used: 12 gallons/year
Exposure Time: 12 hours/year

Status Quo Alternative: Toluene, Ashland Chemical Company

1 Self Contained Breathing Apparatus	19.57
12 pairs of nitrile rubber gloves	17.95
4 pairs of safety glasses	20.00
Total Price	57.52

Proposed Alternative: Klean-Green Cleaning Solvent

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of solvent impermeable gloves	16.20
4 pairs of safety glasses	20.00
1 impermeable apron	8.70
Total Price	57.15

Proposed Alternative: Klean-Strip Mil-Klean

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of solvent impermeable gloves	16.20
4 pairs of safety glasses	20.00
1 impermeable apron	8.70
Total Price	57.15

Proposed Alternative: Klean-Green Toluene/Xylene Sub

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of solvent impermeable gloves	16.20
4 pairs of safety glasses	20.00
1 impermeable apron	8.70
Total Price	57.15

Proposed Alternative: Hurrifsafe 9040 Special Formula

None Listed	
Total Price	0.00

Proposed Alternative: FC056 Citra Safe

1 NIOSH approved organic vapor cartridge respirator	12.25
12 pairs of nitrile gloves	17.95
4 pairs of safety glasses	20.00
Total Price	50.20

Proposed Alternative: Safety Prep, FD 080

12 pairs of rubber gloves	29.95
Total Price	29.95

Figure B-1
Personal Protective Equipment Assumptions and Costs

PRIMERS

Building 715 - Motor Paint, MK 37 ASROC

Building 715 - Thruster Paint, MK 37 ASROC

Quantity Used: 120 gallons/year for Motor Paint;
12 gallons /year for Thruster Paint
Exposure Time: 120 hours/year

Status Quo Alternative: #1001 Zinc Primer Liquid

2 Self Contained Breathing Apparatus respirators	39.14
48 pairs of nitrile gloves	71.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	176.94

Proposed Alternative: TT-E-545C Alkyd Primer

None found

Total Price	0.00
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Proposed Alternative: So-Sure Primer Yellow 33637 P/N 782-831

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Formula 84

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: TT-P-1757 Yellow Zinc Chromate Primer

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of nitrile gloves	71.80
12 pairs of plastic goggles	31.20
Total Price	152.00

Proposed Alternative: Primer Coating, Zinc Chromate Comp L

4 NIOSH approved organic vapor cartridge respirators	49.00
12 pairs of plastic goggles	31.20
Total Price	80.20

Proposed Alternative: TT-P-1757 Zinc Chromate Primer (Yellow)

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
12 full face shields	87.60
Total Price	232.60

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: TT-P-645B Formula 84 No. 33793	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: Lacquer Primer, MIL-P-7962, Yellow	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of neoprene gloves	151.20
12 pairs of plastic goggles	31.20
Total Price	231.40
Total Price	49.00

Proposed Alternative: 3-D Degreaser, P/N/-FLSC-97	
48 pairs of solvent impermeable gloves	64.80
Total Price	64.80

Proposed Alternative: Safe Stuff Limonene Cleaner, P/N-FLSC-75	
None Required	
Total Price	0.00

Proposed Alternative: Nature-Sol 100	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Brulin SD 1291	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Safety Prep, FD 080	
48 pairs of rubber gloves	119.80
Total Price	119.80

Figure B-1
Personal Protective Equipment Assumptions and Costs

THINNERS

Building 715 - Motor Paint, MK 37 ASROC

Quantity Used: 120 gallons/year
Exposure Time: 120 hours/year

Status Quo Alternative: MIL-T-81772B Solvent Thinner

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: CHEMGLAZE 9951 Thinner

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of nitrile gloves	71.80
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
Total Price	185.84

Status Quo Alternative: Thinner Synthetic Resin Enamel

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
4 impermeable aprons	34.80
Total Price	208.60

Status Quo Alternative: Thinner Paint Type I, Regular Mineral Spirits

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
Total Price	178.84

Proposed Alternative: T-81772 Type 2 Epoxy Thinner

2 Self Contained Breathing Apparatus respirators	39.14
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	135.14

Proposed Alternative: TT-T-291E Thinner

4 NIOSH approved organic vapor cartridge respirators	49.00
12 pairs of plastic goggles	31.20
Total Price	80.20

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: MIL-T-81772, Thinner, Paint Product	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of neoprene gloves	151.20
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
Total Price	265.24

Proposed Alternative: Thinner, Aliphatic, Polyurethane Coating	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: CSD 81772 Type IA Epoxy Thinner	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of nitrile gloves	71.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	186.80

Proposed Alternative: Synthetic Resin Thinner	
2 Self Contained Breathing Apparatus respirators	39.14
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
Total Price	168.98

Proposed Alternative: TT-T-266D Thinner	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: Paint Thinner	
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	96.00

Proposed Alternative: Chevron Thinner 350 H	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: Klean-Strip Lacquer Thinner, LT-27	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
12 full face shields	87.60
4 impermeable aprons	34.80
Total Price	267.40

Proposed Alternative: Klean-Strip Mineral Spirits, PN-GMS44	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
12 full face shields	87.60
4 impermeable aprons	34.80
Total Price	267.40

Proposed Alternative: Klean-Strip Paint Thinner	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: Regular Mineral Spirits	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 full face shields	87.60
Total Price	201.40

PAINTS

Building 715 - Paint/Stencil/Packout Vandal Chambers

Building 715 - Motor Paint, MK 37 ASROC

Building 715 - Thruster Paint, MK 37 ASROC

Quantity Used: **N/K for Paint/Stencil/Packout Vandal Chambers**
 120 gallons/year for Motor Paint, MK 37 ASROC
 12 gallons/year for Thruster Paint, MK 37 ASROC

Exposure Time: 120 hours/year

Status Quo Alternative: Krylon High Heat Spray Paint	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Figure B-1
 Personal Protective Equipment Assumptions and Costs

Status Quo Alternative: Krylon 1402 High Heat Aluminum Paint	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: Epoxy, Comp B, MIL-P-85582B, TY 1 Cl C1	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Status Quo Alternative: Aliphatic Isocyanate	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Status Quo Alternative: Polyurethane, MIL-C-85285B, 17925 TY I	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Status Quo Alternative: Pigmented Polymer	
4 Self-Contained Breathing Apparatus respirators	78.28
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	209.08

Status Quo Alternative: So-Sure Lacquer	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Status Quo Alternative: So-Sure Blue 35109 (54-350) P	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: So-Sure Yellow 23538 (114-230) G	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: HARD HAT Fluorescent Topcoats	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

Status Quo Alternative: PC-118 Polyurethane Curing Solution and Catalyst

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: #20117 Brown Air Dry Enamel

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: Epoxy Catalyst Comp B

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Status Quo Alternative: Catalyst Aliphatic Isocyanate Reactant

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of neoprene gloves	151.20
12 pairs of plastic goggles	31.20
Total Price	231.40

Proposed Alternative: MIL-L-81352, Lacquer, Acrylic

None found

Total Price	0.00
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Proposed Alternative: So-Sure White 17875 (144-170)

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: TT-L-32A, AM-1 TY II, Blue 1510

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Polyurethane Coating, Green 24052 Parts 1 and 2

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
12 pairs of full face shields	87.60
Total Price	287.60

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: Polyurethane Coating, Black 37038 Parts 1 and 2	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Eco-Sure Blue 25042 Semigloss VOC-Compliant	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Eco-Sure Brown 30117 (674-394) P/N 672C894	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Coating Polyurethane High Solids Black 37037 Pts1&2	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Polyurethane Coating Green 24052 Parts 1 and 2	
4 Self-Contained Breathing Apparatus respirators	78.28
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	174.28

Proposed Alternative: TT-L-20A White Lacquer 37875	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
4 impermeable aprons	34.80
Total Price	179.80

Proposed Alternative: Heat Resisting EN-TT-E-496 A 14391	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
12 pairs of full face shields	87.60
4 impermeable aprons	34.80
Total Price	267.40

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: A-58A Enamel (TT-E-516A)	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of rubber gloves	119.80
12 pairs of plastic goggles	31.20
Total Price	200.00

Proposed Alternative: Enamel Alkyd Gloss Brown 10076 ID 742010	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
Total Price	173.80

Proposed Alternative: Enamel Alkyd Gloss Low VOC Orange 12197	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of safety glasses	60.00
Total Price	173.80

Proposed Alternative: Enamel, TT-E-489H Low VOC (Blue)	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of neoprene gloves	151.20
12 pairs of safety glasses	60.00
12 pairs of side shields	5.04
4 impermeable aprons	34.80
Total Price	300.04

Proposed Alternative: Coating Polyurethane High Solids Black 17038 Pts1&2	
4 NIOSH/MSHA approved air purifying respirators	81.92
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	177.92

Proposed Alternative: Eco-Sure Yellow 23538 (674-234) P/N 672C834	
4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: A-4300-33538 Aerosol Flat Yellow	
4 Self-Contained Breathing Apparatus respirators	78.28
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	174.28

Proposed Alternative: 02-Y-40 3GK Epoxy 13538 Comp A and B	
4 NIOSH approved organic vapor cartridge respirators	49.00
Total Price	49.00

Figure B-1
Personal Protective Equipment Assumptions and Costs

Proposed Alternative: MIL-P-23377F Epoxy TY 1, CI 2, 513X419

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

Proposed Alternative: Super Desothane 828X310, Black 37038

4 NIOSH approved organic vapor cartridge respirators	49.00
48 pairs of solvent impermeable gloves	64.80
12 pairs of plastic goggles	31.20
Total Price	145.00

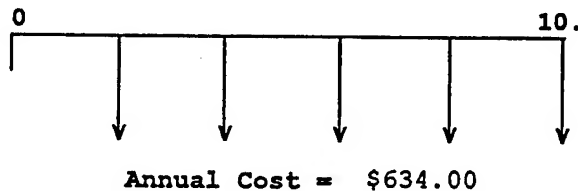
Figure B-1
Personal Protective Equipment Assumptions and Costs

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

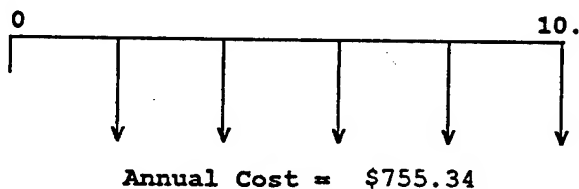
Status Quo Alternative: SS-4004 SILICONE PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 1204 PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$634.00	7.02360	\$4452.96

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$755.34	7.02360	\$5305.21

The status quo alternative, SS-4004 Silicone Primer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

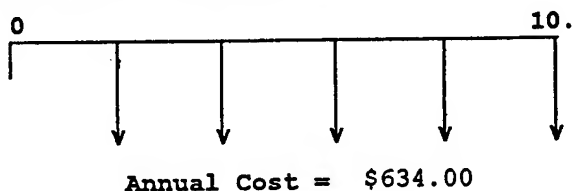
AFMADOC-5/96-2603-50

05/05/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

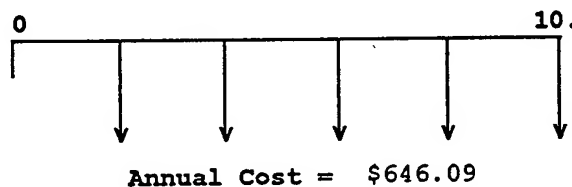
Status Quo Alternative: SS-4004 SILICONE PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 1200 RTV PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$634.00	7.02360	\$4452.96

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$646.09	7.02360	\$4537.88

The status quo alternative, SS-4004 Silicone Primer, is preferred because of its lower Net Present Value cost.

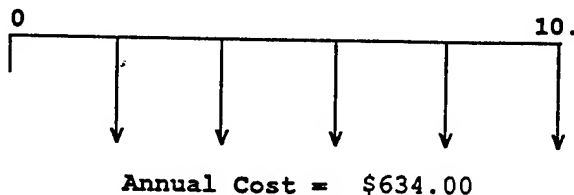
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SS-4004 SILICONE PRIMER

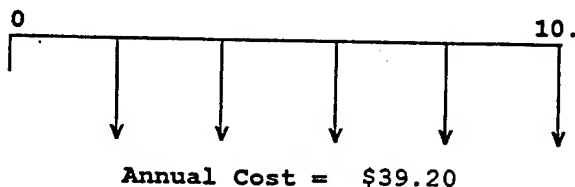


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ALL PURPOSE PRIMER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$634.00	7.02360	\$4452.96

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$39.20	7.02360	\$275.33

The proposed alternative, All Purpose Silicone Primer, is preferred because of its lower Net Present Value cost.

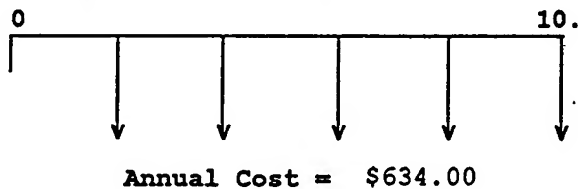
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SS-4004 SILICONE PRIMER

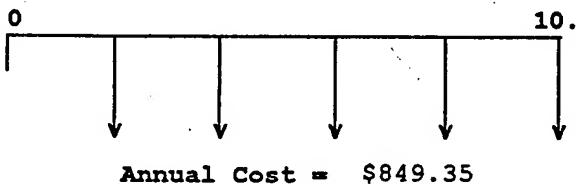


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: NORSIL SILICONE PRIMER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$634.00	7.02360	\$4452.96

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$849.35	7.02360	\$5965.49

The status quo alternative, SS-4004 Silicone Primer, is preferred because of its lower Net Present Value cost.

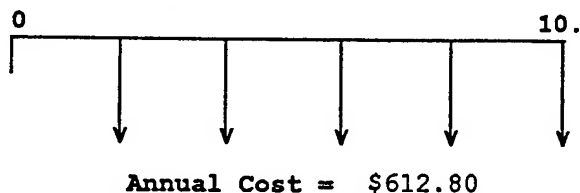
Figure B-2
The Type II Net Present Value Economic Analysis

05/03/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

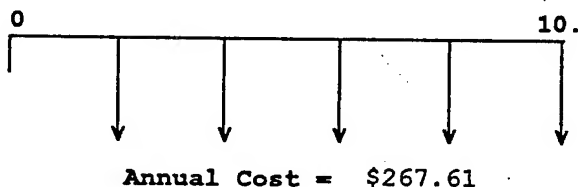
Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 1-2531 RELEASE COATING



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$267.61	7.02360	\$1879.59

The proposed alternative, 1-2531 Release Coating, is preferred because of its lower Net Present Value cost.

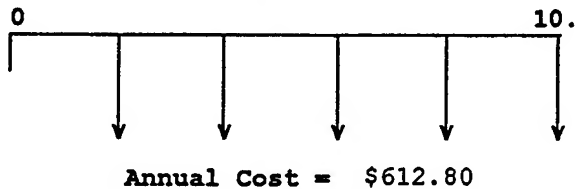
Figure B-2
The Type II Net Present Value Economic Analysis

05/03/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT

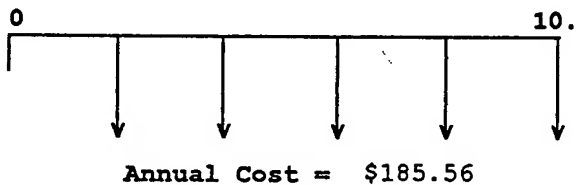


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CAMIE #A1000 DRY LUBRICANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$185.56	7.02360	\$1303.30

The proposed alternative, Camie #A1000 Dry Lubricant, is preferred because of its lower Net Present Value cost.

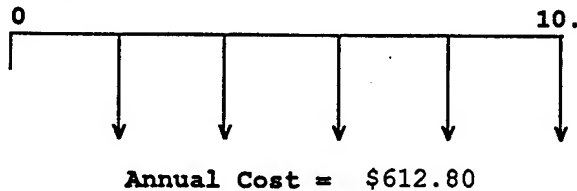
Figure B-2
The Type II Net Present Value Economic Analysis

05/03/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT

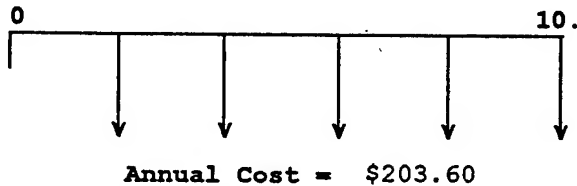


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MS-143N RELEASE AGENT/DRY LUBRICANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$203.60	7.02360	\$1430.00

The proposed alternative, MS-143N Release Agent/Dry Lubricant, is preferred because of its lower Net Present Value cost.

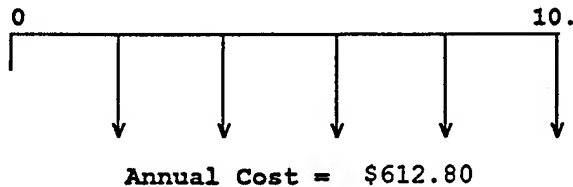
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

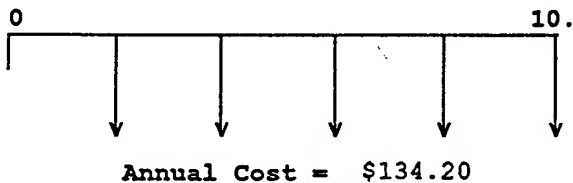
Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MS-122N/CO2 TFE RELEASE AGENT/DRY LUBRICANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$134.20	7.02360	\$942.57

The proposed alternative, MS-122N/CO2 TFE Release Agent/Dry Lubricant, is preferred because of its lower Net Present Value cost.

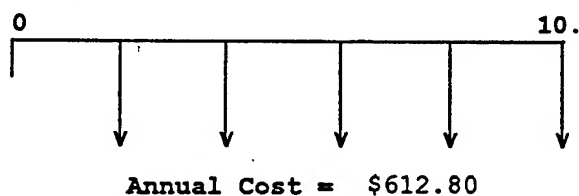
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

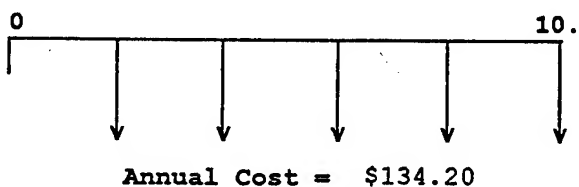
Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MS-136N/CO2 RELEASE AGENT - HOT MOLD



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$134.20	7.02360	\$942.57

The proposed alternative, MS-136N/CO2 Release Agent - Hot Mold, is preferred because of its lower Net Present Value cost.

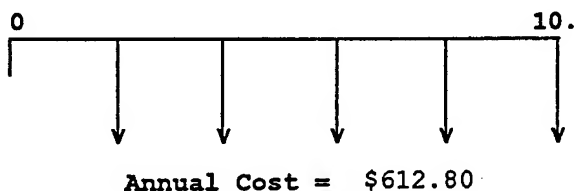
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

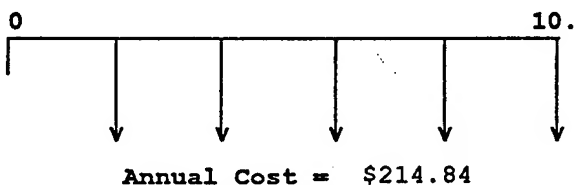
Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SPECTRUM RELEASE W.B.



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$214.84	7.02360	\$1508.95

The proposed alternative, Spectrum Release W.B., is preferred because of its lower Net Present Value cost.

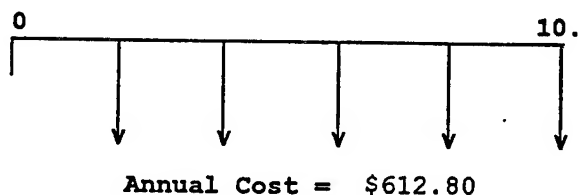
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

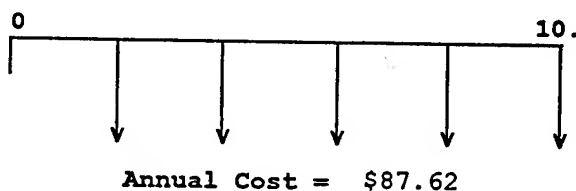
Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: RELEASE #1 VOC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$87.62	7.02360	\$615.41

The proposed alternative, Release #1 VOC, is preferred because of its lower Net Present Value cost.

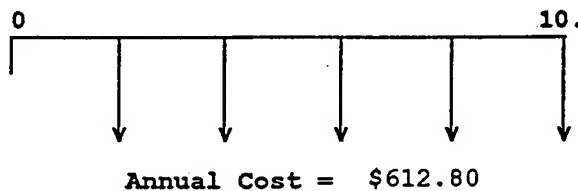
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: MS-143 FLUOROCARBON RELEASE AGENT

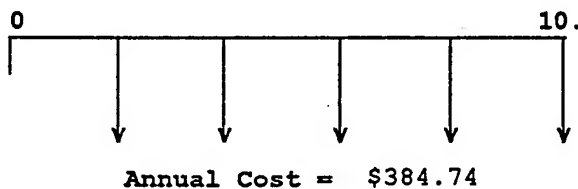


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: RELEASE ALL SAFELEASE 30



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$612.80	7.02360	\$4304.06

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$384.74	7.02360	\$2702.26

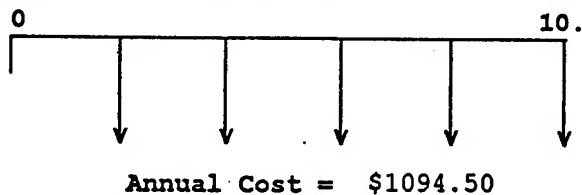
The proposed alternative, Release All Safelease 30, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

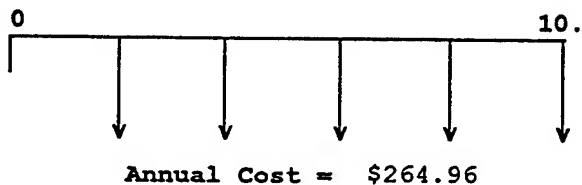


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: PLIOBOND 20



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$264.96	7.02360	\$1860.97

The proposed alternative, Pliobond 20, is preferred because of its lower Net Present Value cost.

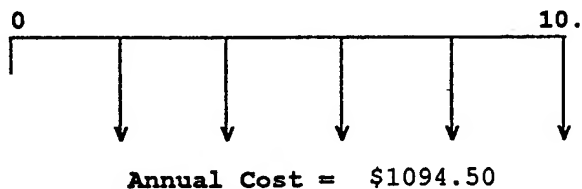
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

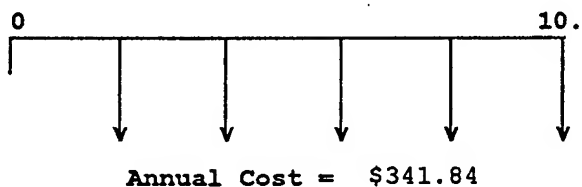


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: PSI-601 SILICONE SEALANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$341.84	7.02360	\$2400.95

The proposed alternative, PSI Adhesive 601 Silicone Sealant and 690 Primer, is preferred because of its lower Net Present Value cost.

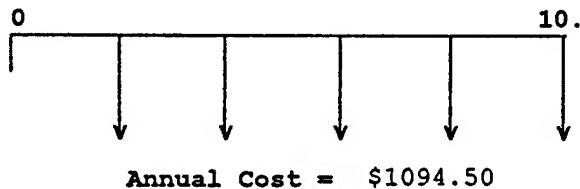
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

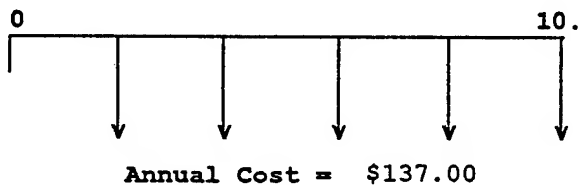
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 3M SPRAY TRIM ADHESIVE P/N 08074



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$137.00	7.02360	\$962.23

The proposed alternative, 3M Spray Trim Adhesive P/N 08074, is preferred because of its lower Net Present Value cost.

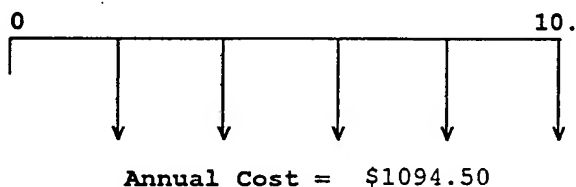
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

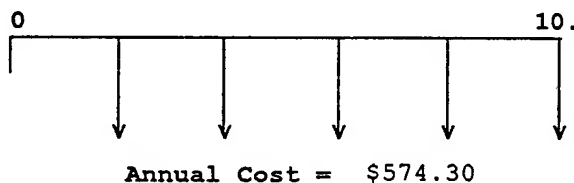
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: EPK 0151, PART A



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$574.30	7.02360	\$4033.65

The proposed alternative, EPK 0151 Parts A and B, is preferred because of its lower Net Present Value cost.

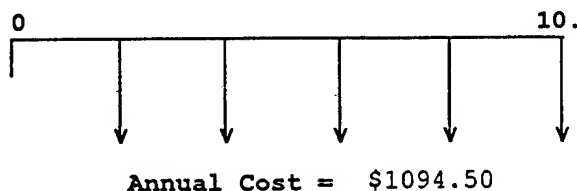
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

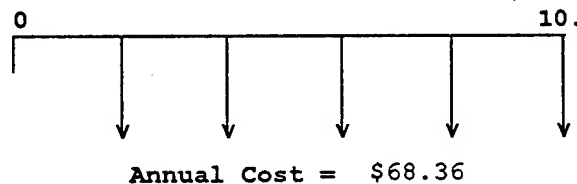
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MMM-A-1058A ADHESIVE, PC-NAPCO



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$68.36	7.02360	\$480.13

The proposed alternative, MMM-A-1058A Adhesive, PC-NAPCO, is preferred because of its lower Net Present Value cost.

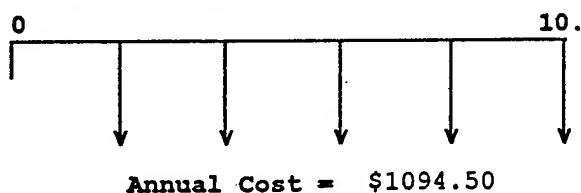
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

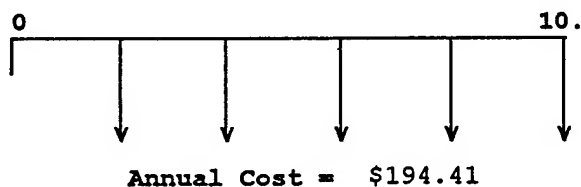
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: UNSATURATED POLYESTER RESIN



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$194.41	7.02360	\$1365.46

The proposed alternative, Unsaturated Polyester Resin, is preferred because of its lower Net Present Value cost.

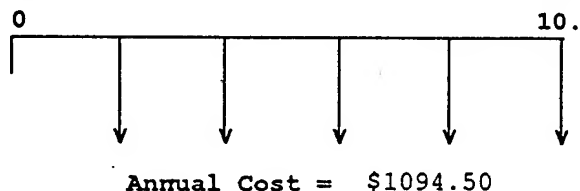
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

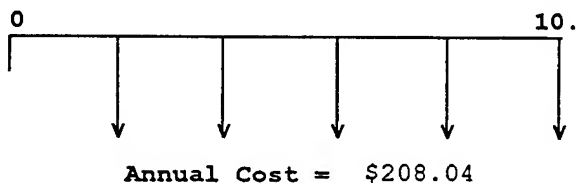


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: PSI-631 SILICONE SEALANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$208.04	7.02360	\$1461.19

The proposed alternative, PSI-631 Silicone Sealant, is preferred because of its lower Net Present Value cost.

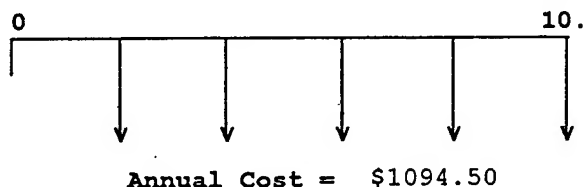
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

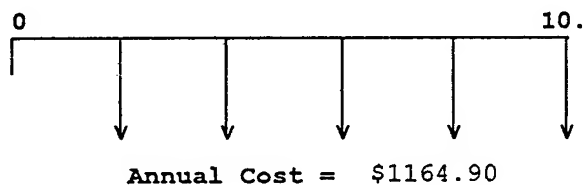
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: PSI-322 CLEAR & FD CLEAR EPOXY GEL, PART A



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1164.90	7.02360	\$8181.79

The status quo alternative, A-12 Parts A and B Adhesive, is preferred because of its lower Net Present Value cost.

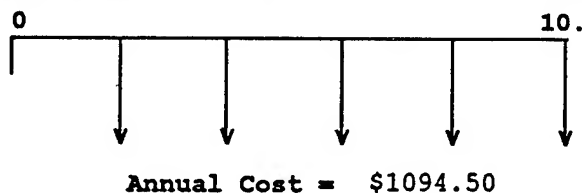
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

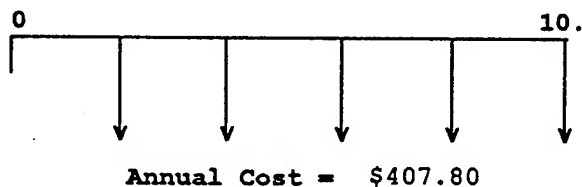


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-1177-B-1 TWO PART EPOXY



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$407.80	7.02360	\$2864.22

The proposed alternative, A-1177-B Two Part Epoxy, is preferred because of its lower Net Present Value cost.

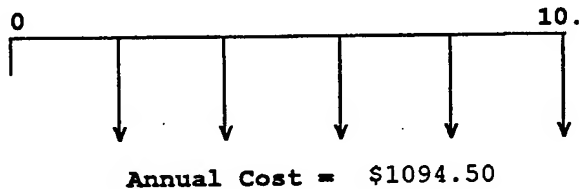
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

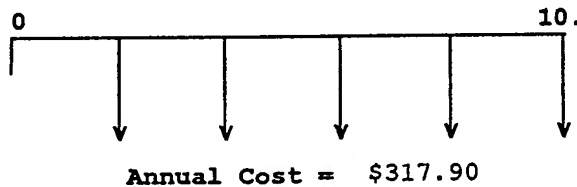


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: PSI-367 PART A EPOXY PASTE



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$317.90	7.02360	\$2232.80

The proposed alternative, PSI-367 Part A and B Epoxy Paste, is preferred because of its lower Net Present Value cost.

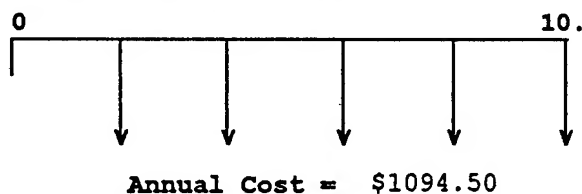
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

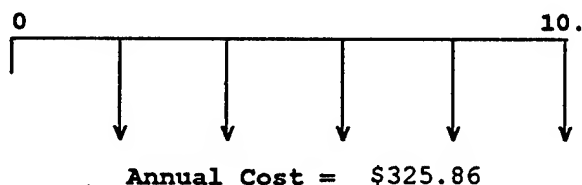


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: GENERAL PURPOSE ADHESIVE SPRAY



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$325.86	7.02360	\$2288.71

The proposed alternative, General Purpose Adhesive Spray, is preferred because of its lower Net Present Value cost.

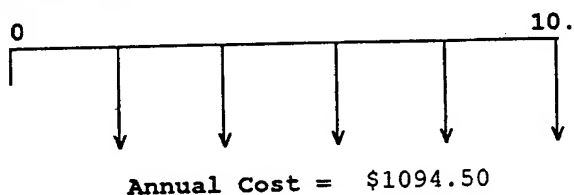
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

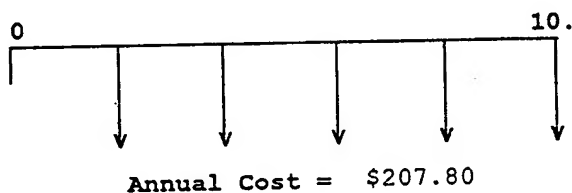
Status Quo Alternative: A-12 PART A AND B ADHESIVE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: PSI-613 HIGH TEMPERATURE SILICONE SEALANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$207.80	7.02360	\$1459.50

The proposed alternative, PSI-613 High Temperature Silicone Sealant, is preferred because of its lower Net Present Value cost.

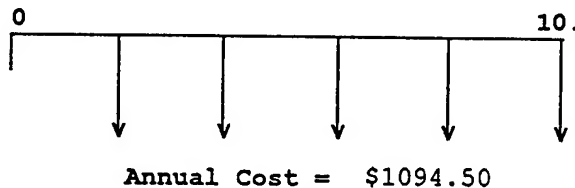
Figure B-2
The Type II Net Present Value Economic Analysis

05/05/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: A-12 PART A AND B ADHESIVE

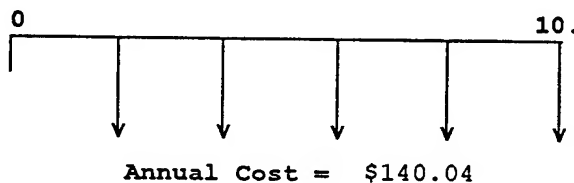


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: L-6261 GSA ADHESIVE



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1094.50	7.02360	\$7687.33

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$140.04	7.02360	\$983.58

The proposed alternative, L-6261 GSA Adhesive, is preferred because of its lower Net Present Value cost.

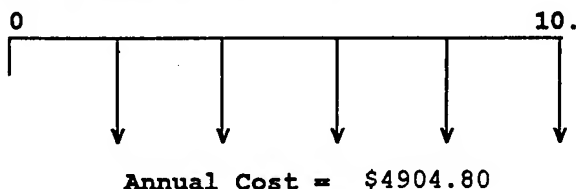
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

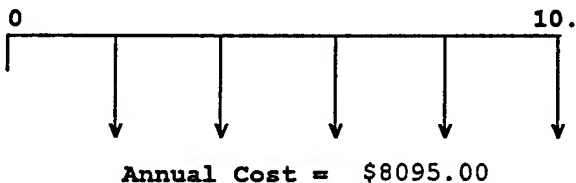
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: FINGER LAKES ID/4R, P/N-FLSC-98



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8095.00	7.02360	\$56856.04

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

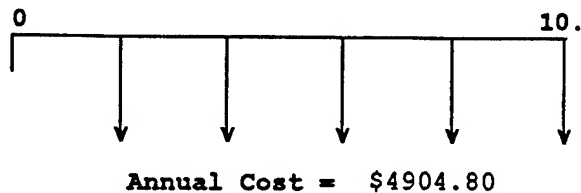
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

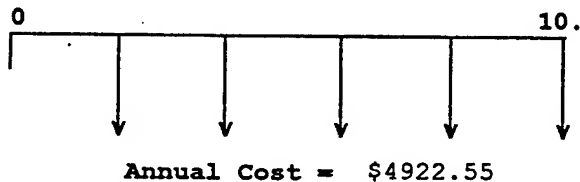
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4922.55	7.02360	\$34574.02

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

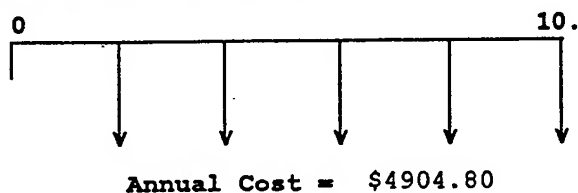
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

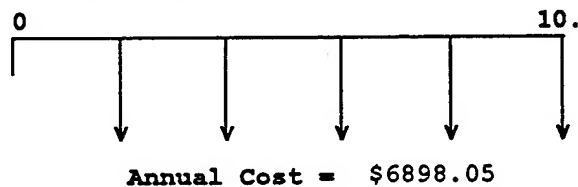
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 3-D DEGREASER, P/N-FLSC-97



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6898.05	7.02360	\$48449.14

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

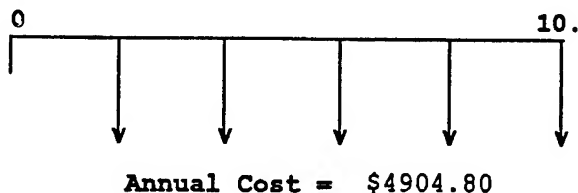
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

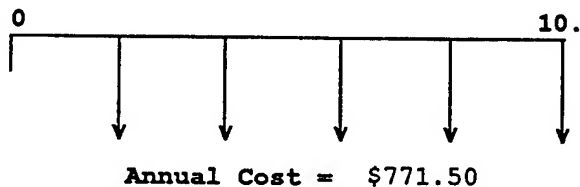
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: NATURE-SOL 100



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$771.50	7.02360	\$5418.71

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The proposed alternative, Nature-Sol 100, is preferred because of its lower Net Present Value cost.

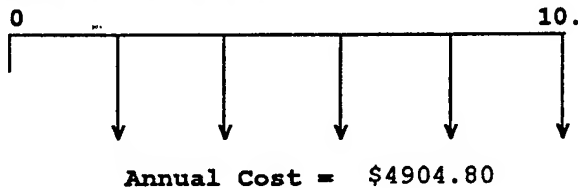
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

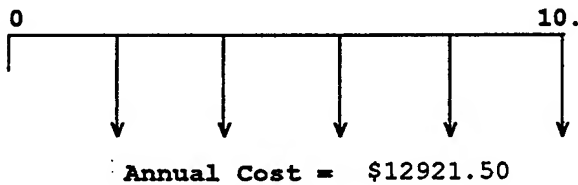
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: BRULIN SD 1291



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$12921.50	7.02360	\$90755.45

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

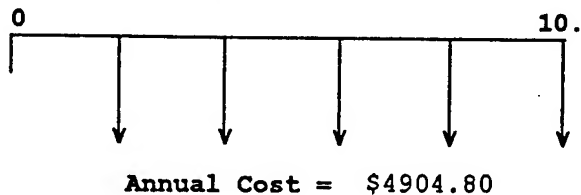
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

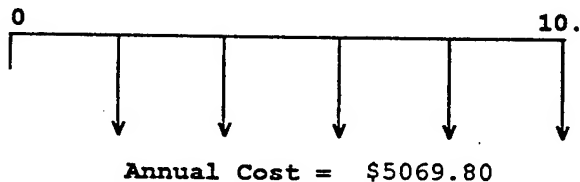
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SAFETY PREP, FD 080



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4904.80	7.02360	\$34449.35

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5069.80	7.02360	\$35608.25

This analysis applies to Building 1040 - Solvent Tank Cleaning of Molds and Motor Parts, and Building 715 - Manufacture of Vandal Beakers. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

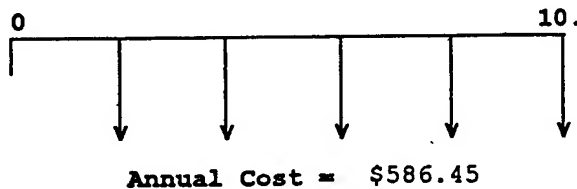
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

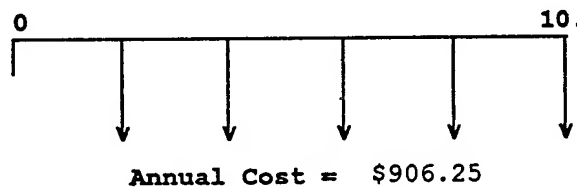
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: FINGER LAKES ID/4R,P/N-FLSC-98



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$906.25	7.02360	\$6365.14

This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

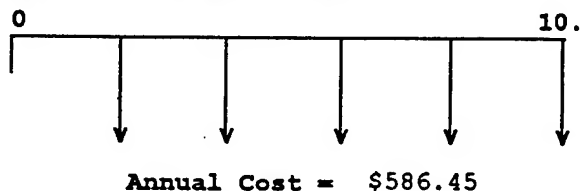
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ACETONE

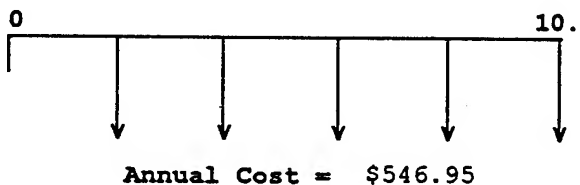


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$546.95	7.02360	\$3841.56

This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The proposed alternative, Safe Stuff, Limonene Cleaner, P/N-FLSC-75, is preferred because of its lower Net Present Value cost.

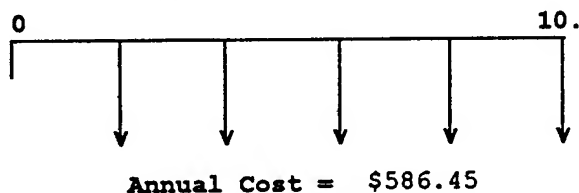
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

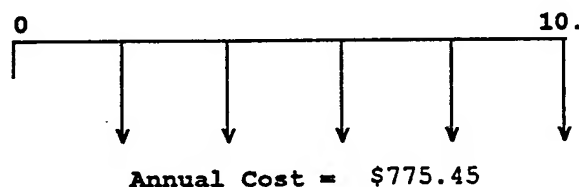
Status Quo Alternative: ACETONE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 3-D DEGREASER, P/N-FLSC-97



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$775.45	7.02360	\$5446.45

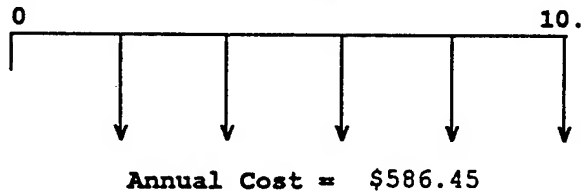
This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ACETONE

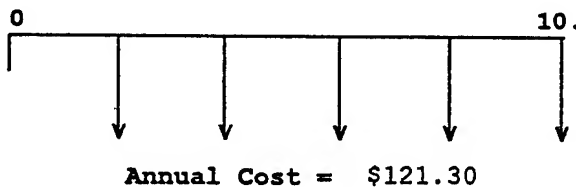


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: NATURE-SOL 100



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$121.30	7.02360	\$851.96

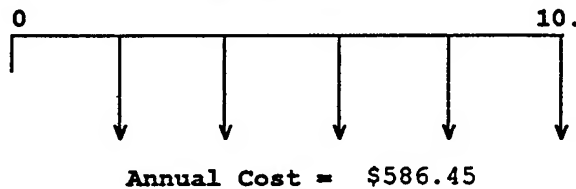
This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The proposed alternative, Nature-Sol 100, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ACETONE

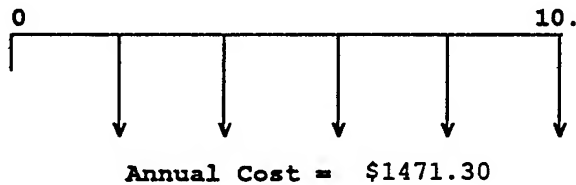


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: BRULIN SD 1291



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1471.30	7.02360	\$10333.82

This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The status quo alternative, Acetone, is preferred because of its lower Net Present Value cost.

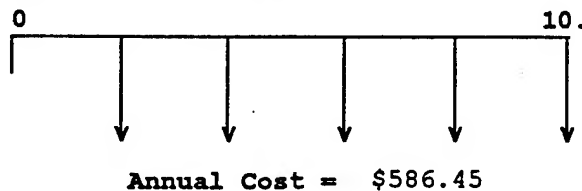
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ACETONE

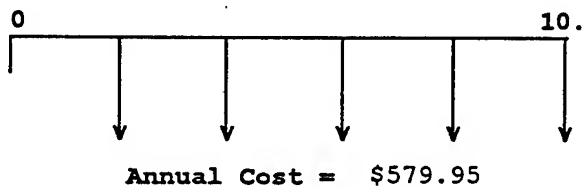


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SAFETY PREP, FD 080



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$586.45	7.02360	\$4118.99

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$579.95	7.02360	\$4073.34

This analysis applies to Building 720 - Inspection/Rework of Rocket Motors, and Building 160 - Cartridge Activated Device Remanufacture. The proposed alternative, Safety Prep, FD 080, is preferred because of its lower Net Present Value cost.

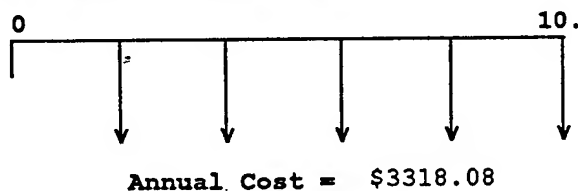
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

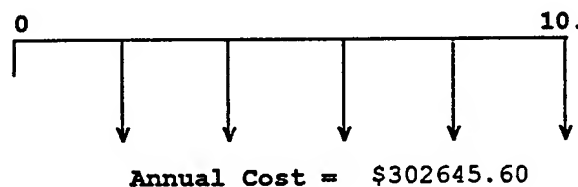
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-GREEN CLEANING SOLVENT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$302645.60	7.02360	\$2125661.64

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

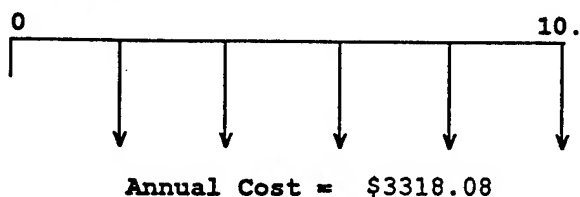
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

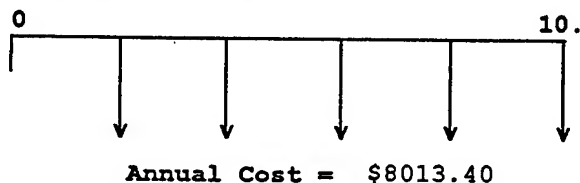
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP MIL-KLEAN



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8013.40	7.02360	\$56282.92

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

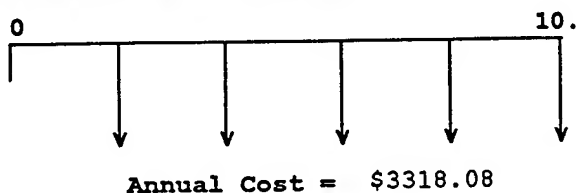
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

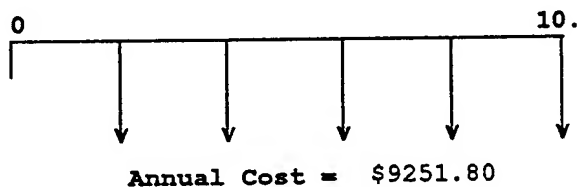
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-GREEN TOLUENE/XYLENE SUB



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9251.80	7.02360	\$64980.94

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

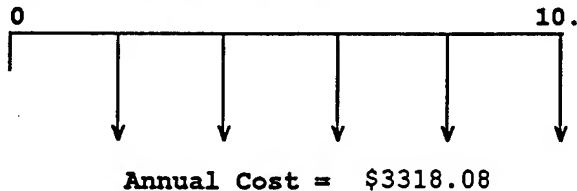
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

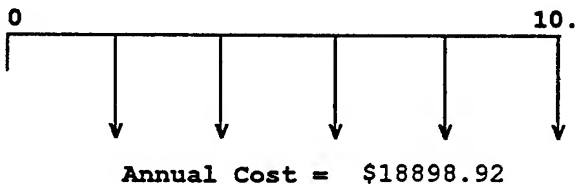
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HURRISAFE 9040 SPECIAL FORMULA



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$18898.92	7.02360	\$132738.45

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

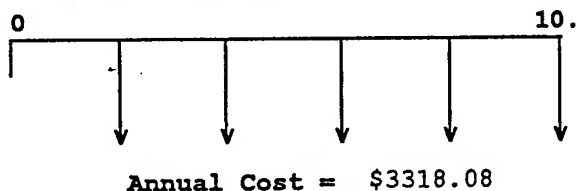
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

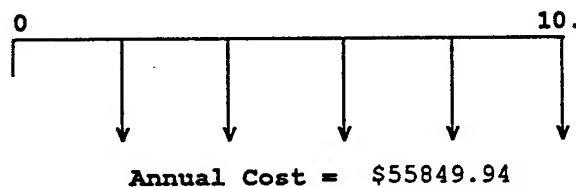
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: FC056 CITRA SAFE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$55849.94	7.02360	\$392267.64

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

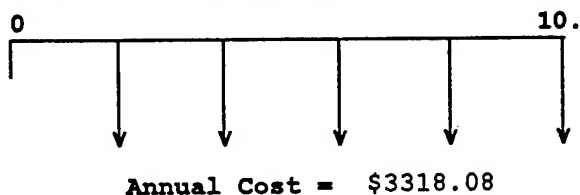
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

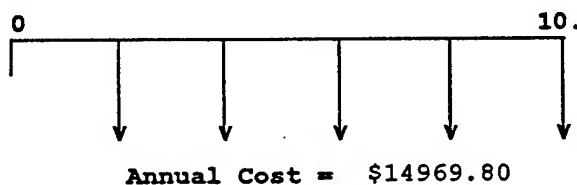
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SAFETY PREP, FD 080



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3318.08	7.02360	\$23304.87

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$14969.80	7.02360	\$105141.89

This analysis applies to Building 1190 - Cleaning of Mix Bowl, and Building 1041 - Cleaning of Cast Tooling. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

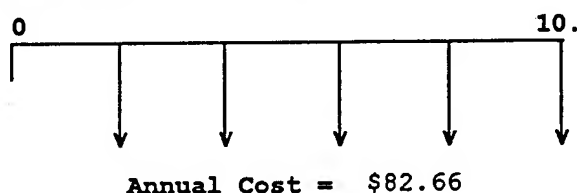
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TOLUENE

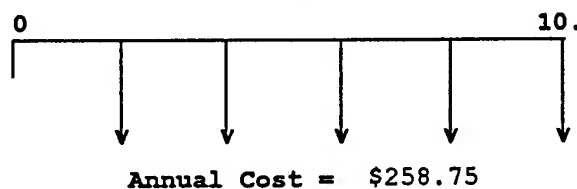


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: KLEAN-GREEN CLEANING SOLVENT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$258.75	7.02360	\$1817.36

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

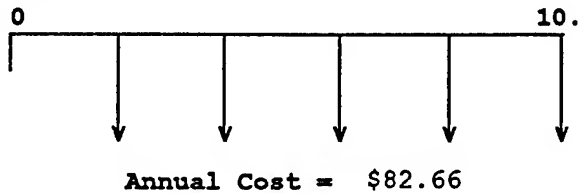
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

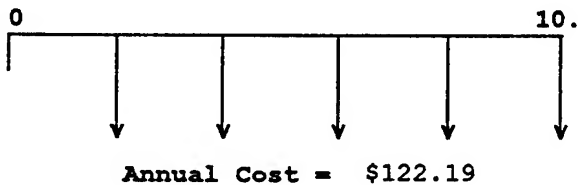
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP MIL-KLEAN



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$122.19	7.02360	\$858.21

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

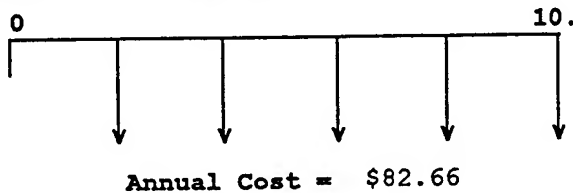
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

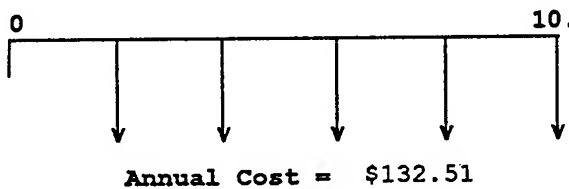
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-GREEN TOLUENE/XYLENE SUB



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$132.51	7.02360	\$930.70

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

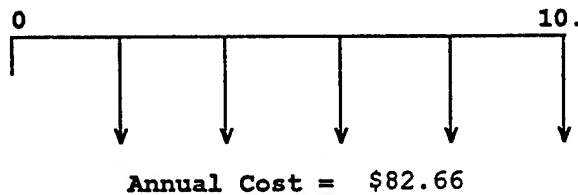
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TOLUENE

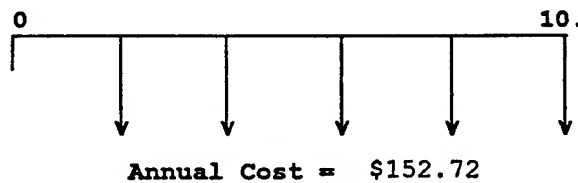


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HURRISAFE 9040 SPECIAL FORMULA



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$152.72	7.02360	\$1072.64

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

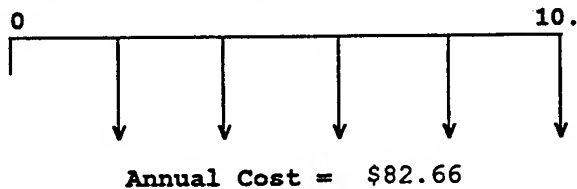
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

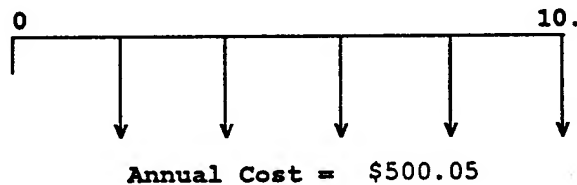
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: FC056 CITRA SAFE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$500.05	7.02360	\$3512.15

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

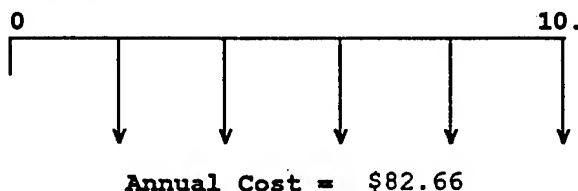
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

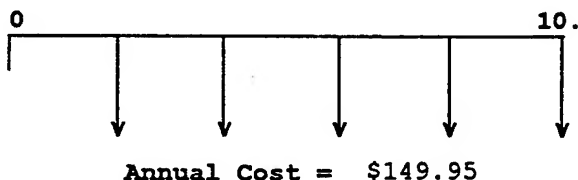
Status Quo Alternative: TOLUENE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SAFETY PREP, FD 080



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$82.66	7.02360	\$580.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$149.95	7.02360	\$1053.19

This analysis applies to Building 1190 - Daily Cleanup of Mix Blades. The status quo alternative, Toluene, is preferred because of its lower Net Present Value cost.

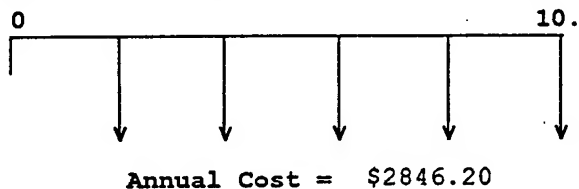
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

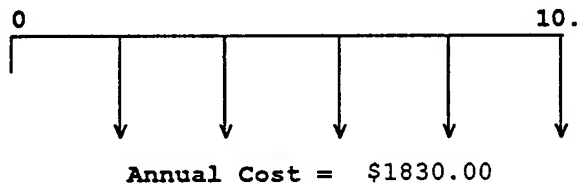


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-545C ALKYD PRIMER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1830.00	7.02360	\$12853.19

The proposed alternative, TT-E-545C Alkyd Primer, is preferred because of its lower Net Present Value cost.

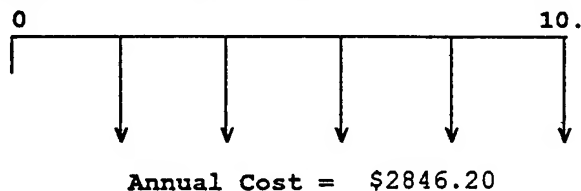
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

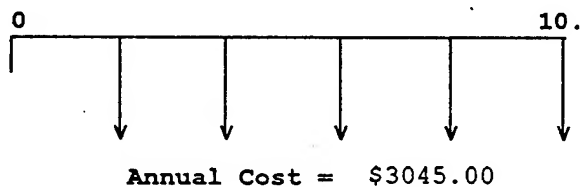


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE PRIM ER YELLOW 33637 P/N 782-831



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3045.00	7.02360	\$21386.86

The status quo alternative, #1001 Zinc Primer Liquid, is preferred because of its lower Net Present Value cost.

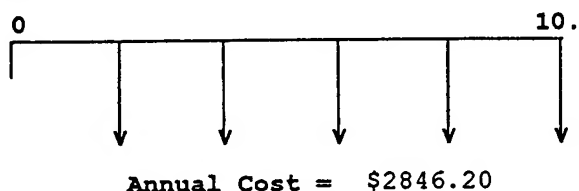
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

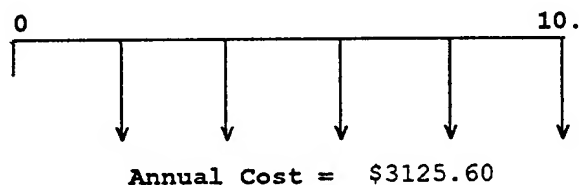


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: FORMULA 84



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3125.60	7.02360	\$21952.96

The status quo alternative, #1001 Zinc Primer Liquid, is preferred because of its lower Net Present Value cost.

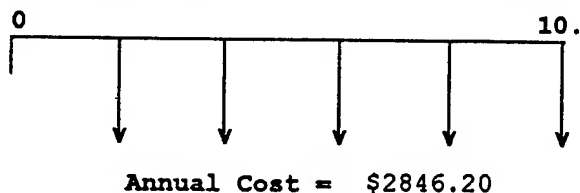
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

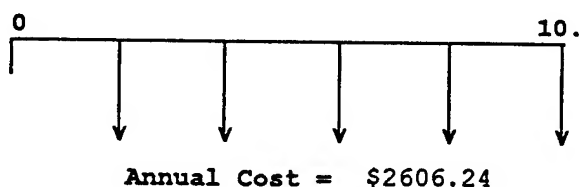


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-1757 YELLOW ZINC CHROMATE PRIMER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2606.24	7.02360	\$18305.19

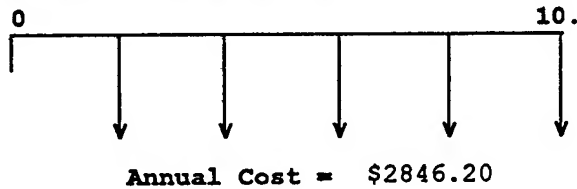
The proposed alternative, TT-P-1757 Yellow Zinc Chromate Primer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

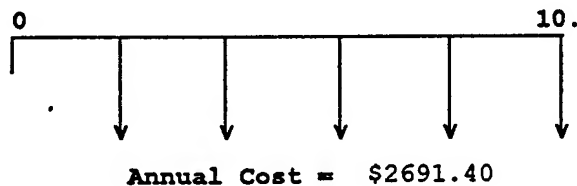
Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 723423 1 GL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2691.40	7.02360	\$18903.32

The proposed alternative, Primer Coating, Zinc Chromate Comp L, is preferred because of its lower Net Present Value cost.

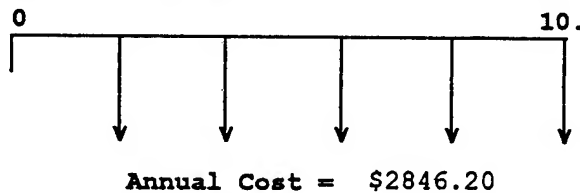
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

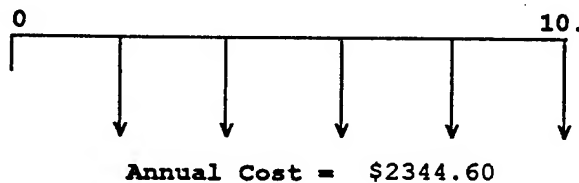
Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-1757 ZINC CHROMATE PRIMER (YELLOW)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2344.60	7.02360	\$16467.53

The proposed alternative, TT-P-1757 Zinc Chromate Primer (Yellow), is preferred because of its lower Net Present Value cost.

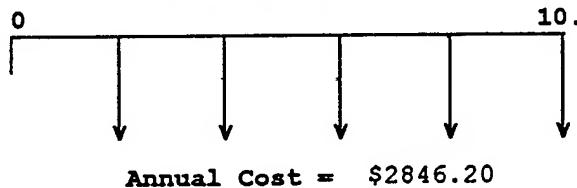
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

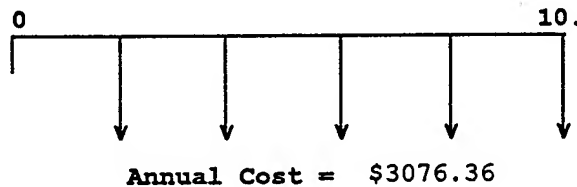


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-645B FORMULA 84 NO. 33793



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2846.20	7.02360	\$19990.57

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3076.36	7.02360	\$21607.12

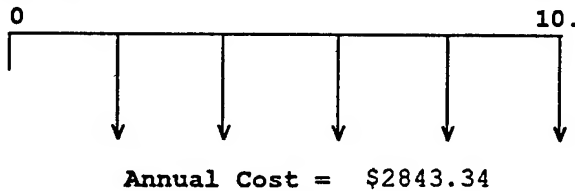
The status quo alternative, #1001 Zinc Primer Liquid, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: 97-673 LIQUID COMPONENT PRIMER

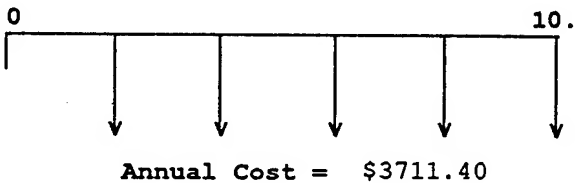


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: LACQUER PRIMER; MIL-P-7962, YELLOW



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2843.34	7.02360	\$19970.48

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3711.40	7.02360	\$26067.39

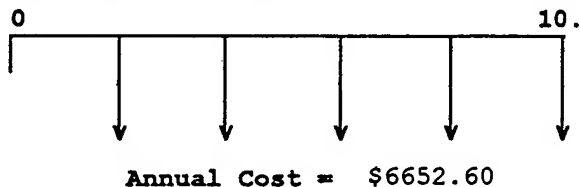
The status quo alternative, #1001 Zinc Primer Liquid, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

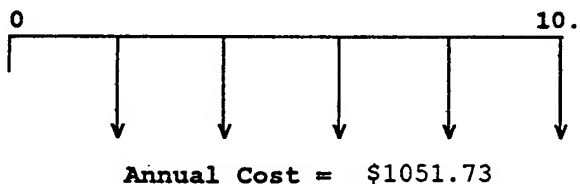


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: T-81772 TYPE 2



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1051.73	7.02360	\$7386.93

The proposed alternative, T-81772 Type 2 Epoxy Thinner, is preferred because of its lower Net Present Value cost.

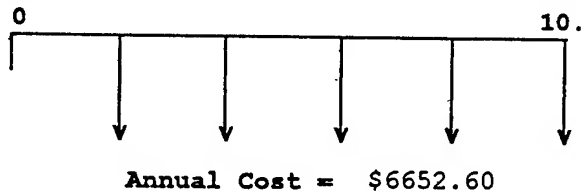
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

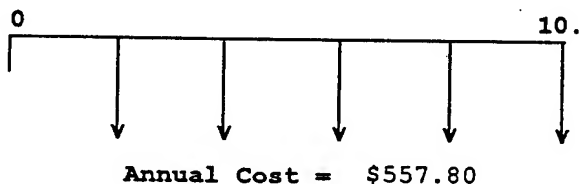
Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-T-291E THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$557.80	7.02360	\$3917.76

The proposed alternative, TT-T-291E Thinner, is preferred because of its lower Net Present Value cost.

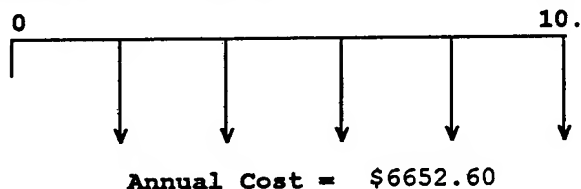
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

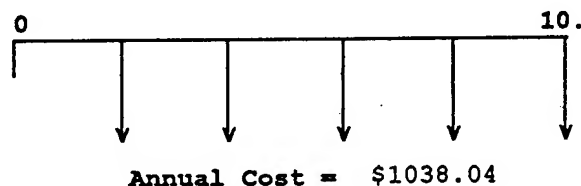
Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-T-81772, THINNER, PAINT PRODUCT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1038.04	7.02360	\$7290.78

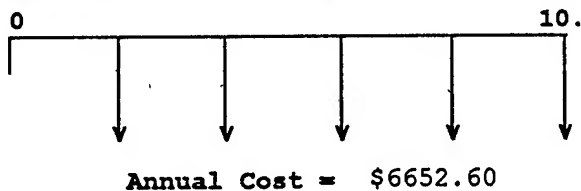
The proposed alternative, MIL-T-81772, Thinner, Paint Product, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

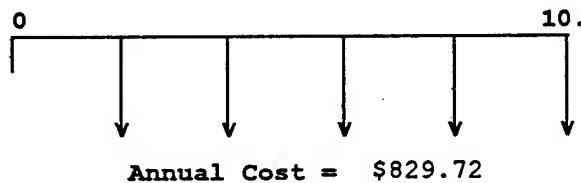


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TL 102 (MIL-T-81772A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$829.72	7.02360	\$5827.62

The proposed alternative, TL 102 (MIL-T--81772A), Thinner, Aliphatic, Polyurethane Coating, is preferred because of its lower Net Present Value cost.

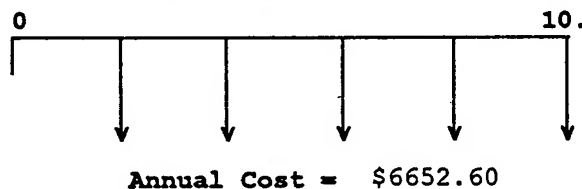
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

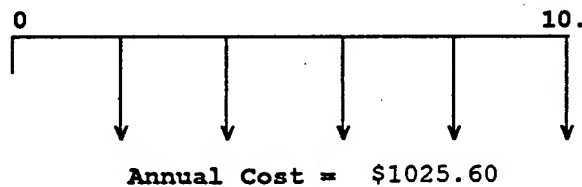


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CSD 81772 TYPE I A



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1025.60	7.02360	\$7203.40

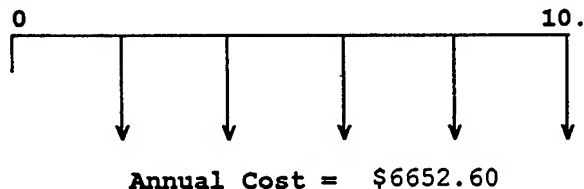
The proposed alternative, CSD 81772 Type IA Thinner, Epoxy, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

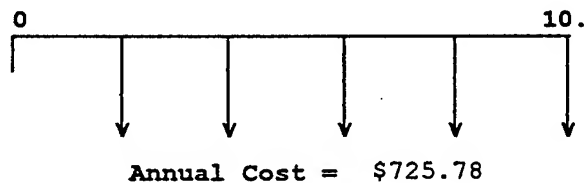


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SYNTHETIC RESIN THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$725.78	7.02360	\$5097.59

The proposed alternative, Synthetic Resin Thinner, is preferred because of its lower Net Present Value cost.

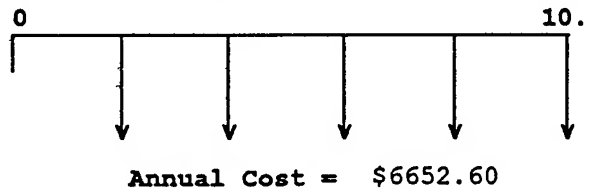
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

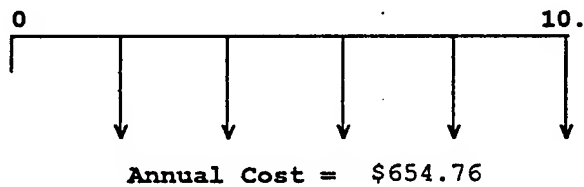
Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-T-266D THINNER, PN 1181T4A



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$654.76	7.02360	\$4598.77

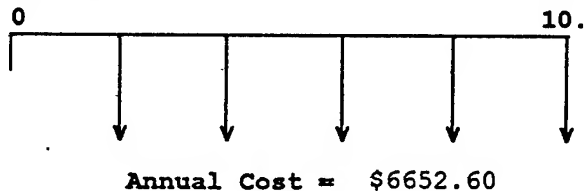
The proposed alternative, TT-T-266D Thinner, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

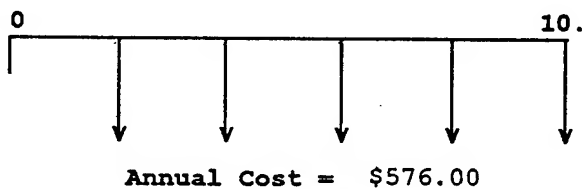


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: PAINT THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$576.00	7.02360	\$4045.59

The proposed alternative, Paint Thinner, is preferred because of its lower Net Present Value cost.

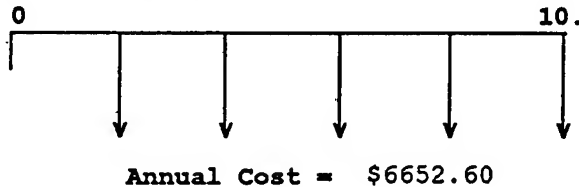
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

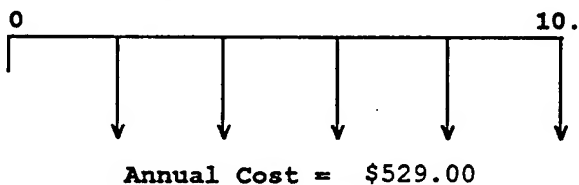
Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: CHEVRON THINNER 350H



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$529.00	7.02360	\$3715.48

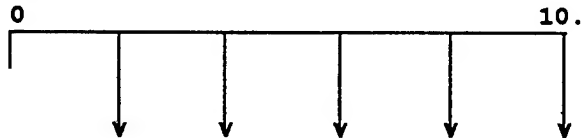
The proposed alternative, Chevron Thinner 350 H, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



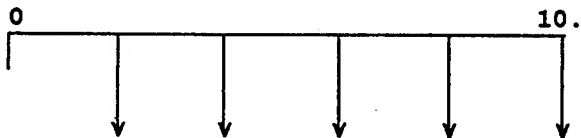
Annual Cost = \$6652.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: LACQUER THINNER KLEAN STRIP, LT-27



Annual Cost = \$847.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$847.00	7.02360	\$5948.99

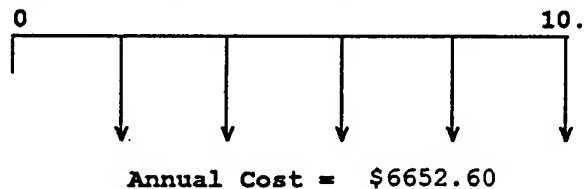
The proposed alternative, Klean-Strip Lacquer Thinner, LT-27, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

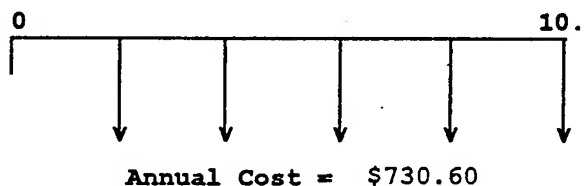


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MINERAL SPIRITS KLEAN STRIP, PN-GMS44



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$730.60	7.02360	\$5131.44

The proposed alternative, Klean-Strip Mineral Spirits, PN-GMS44, is preferred because of its lower Net Present Value cost.

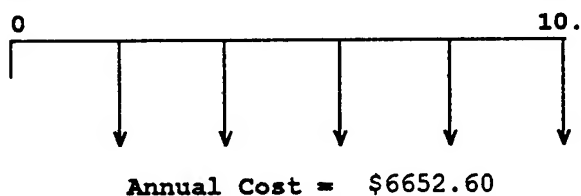
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456

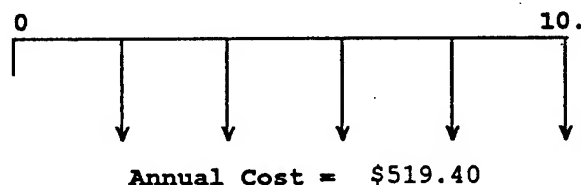


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP PAINT THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$519.40	7.02360	\$3648.06

The proposed alternative, Klean-Strip Paint Thinner, is preferred because of its lower Net Present Value cost.

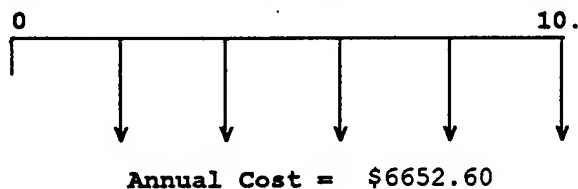
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

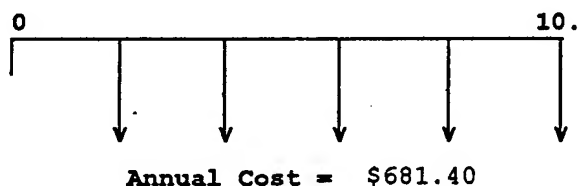
Status Quo Alternative: SOLVENT THINNER MIL-T-81772B, 020X456



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6652.60	7.02360	\$46725.20

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$681.40	7.02360	\$4785.88

The proposed alternative, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

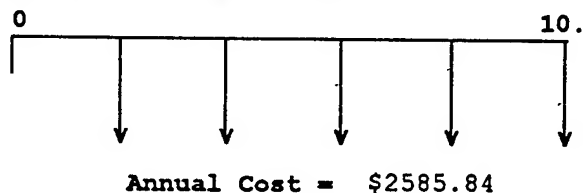
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

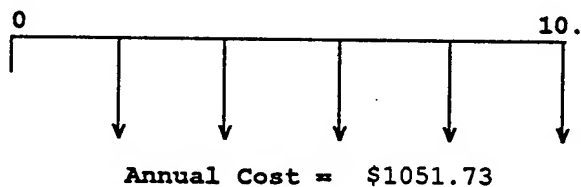


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: T-81772 TYPE 2



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1051.73	7.02360	\$7386.93

The proposed alternative, T-81772 Type 2 Epoxy Thinner, is preferred because of its lower Net Present Value cost.

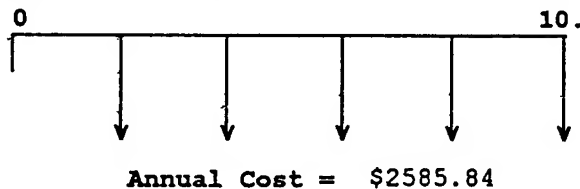
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

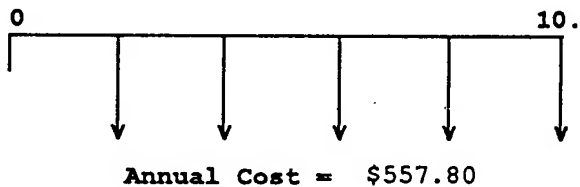


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-T-291E THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$557.80	7.02360	\$3917.76

The proposed alternative, TT-T-291E Thinner, is preferred because of its lower Net Present Value cost.

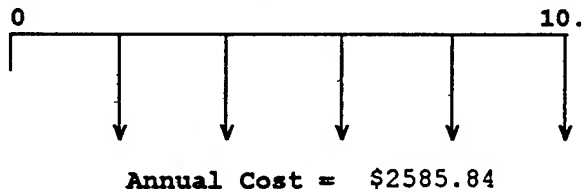
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

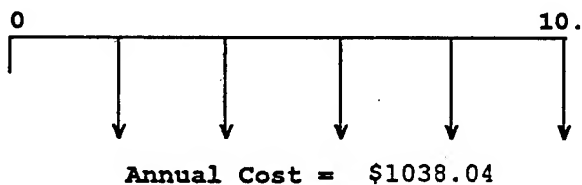


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-T-81772, THINNER, PAINT PRODUCT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1038.04	7.02360	\$7290.78

The proposed alternative, MIL-T-81772, Thinner, Paint Product, is preferred because of its lower Net Present Value cost.

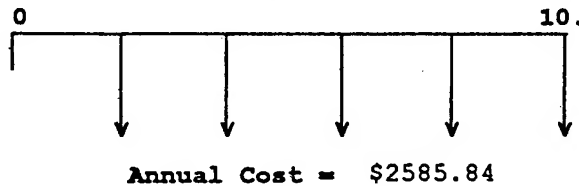
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

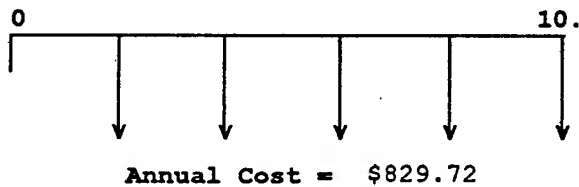
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TL 102 (MIL-T-81772A)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$829.72	7.02360	\$5827.62

The proposed alternative, Thinner, Aliphatic, Polyurethane Coating, is preferred because of its lower Net Present Value cost.

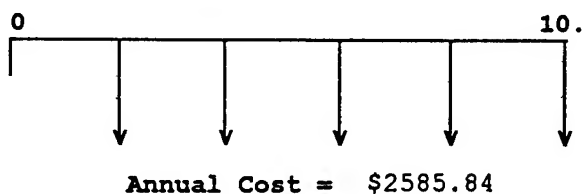
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

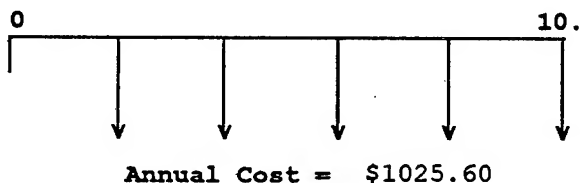
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: CSD 81772 TYPE I A



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1025.60	7.02360	\$7203.40

The proposed alternative, CSD 81772 Type IA Thinner, Epoxy, is preferred because of its lower Net Present Value cost.

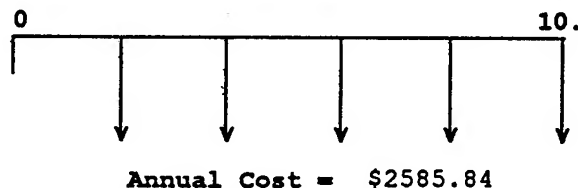
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

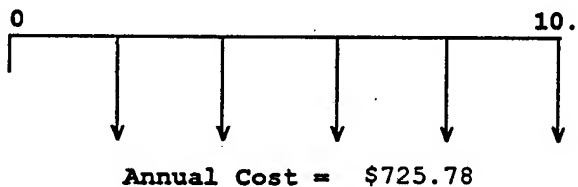
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SYNTHETIC RESIN THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$725.78	7.02360	\$5097.59

The proposed alternative, Synthetic Resin Thinner, is preferred because of its lower Net Present Value cost.

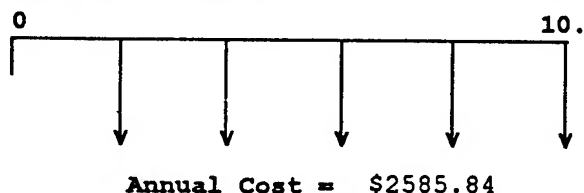
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

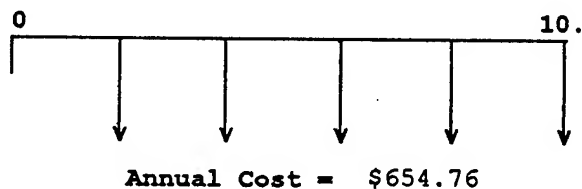


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-T-266D THINNER, PN 1181T4A



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$654.76	7.02360	\$4598.77

The proposed alternative, TT-T-266D Thinner, is preferred because of its lower Net Present Value cost.

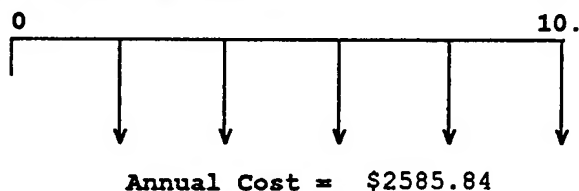
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

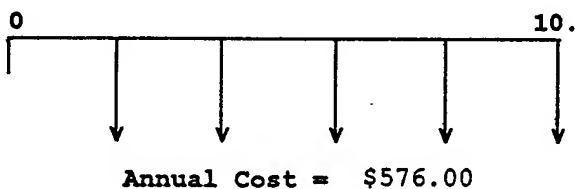
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: PAINT THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$576.00	7.02360	\$4045.59

The proposed alternative, Paint Thinner, is preferred because of its lower Net Present Value cost.

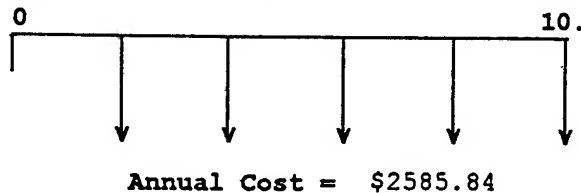
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

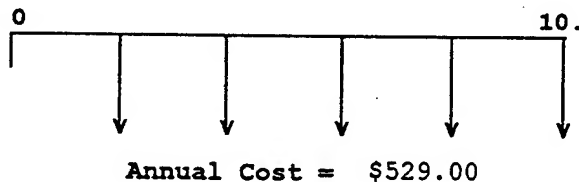


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CHEVRON THINNER 350H



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$529.00	7.02360	\$3715.48

The proposed alternative, Chevron Thinner 350 H, is preferred because of its lower Net Present Value cost.

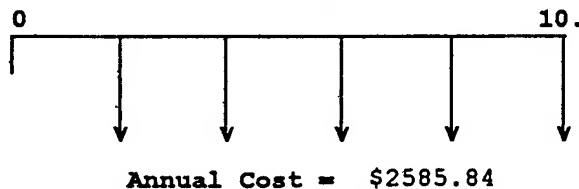
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

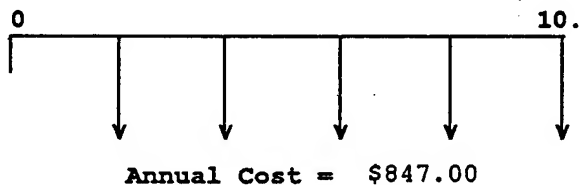


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: LACQUER THINNER KLEAN STRIP, LT-27



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$847.00	7.02360	\$5948.99

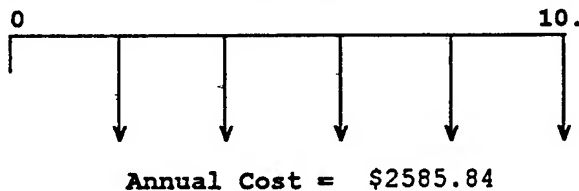
The proposed alternative, Klean-Strip Lacquer Thinner, LT-27, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CHEMGLAZE 9951 THINNER

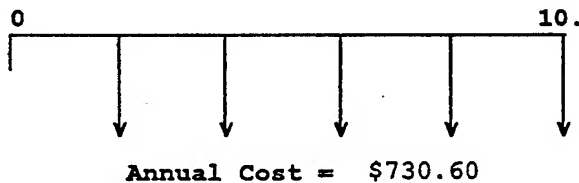


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MINERAL SPIRITS KLEAN STRIP, PN-GMS44



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$730.60	7.02360	\$5131.44

The proposed alternative, Klean-Strip Mineral Spirits, PN-GMS44, is preferred because of its lower Net Present Value cost.

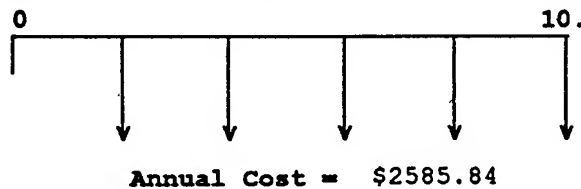
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

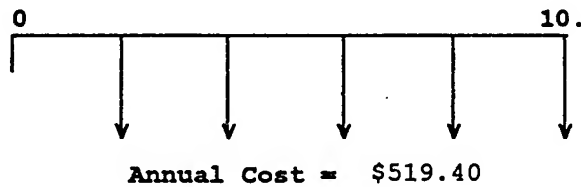
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP PAINT THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0 .	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$519.40	7.02360	\$3648.06

The proposed alternative, Klean-Strip Paint Thinner, is preferred because of its lower Net Present Value cost.

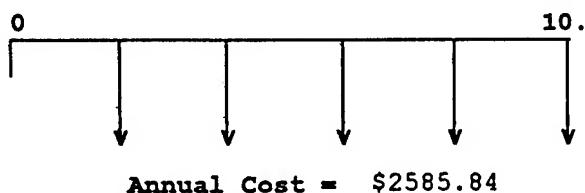
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

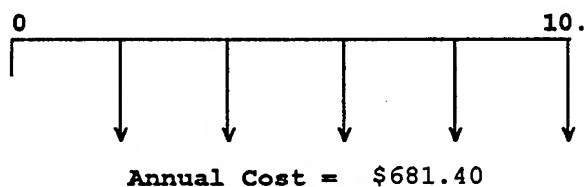
Status Quo Alternative: CHEMGLAZE 9951 THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2585.84	7.02360	\$18161.91

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$681.40	7.02360	\$4785.88

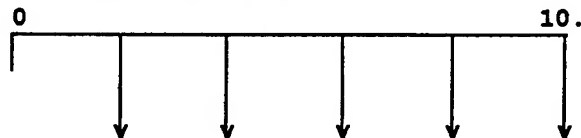
The proposed alternative, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



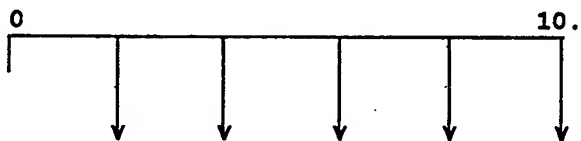
Annual Cost = \$765.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: T-81772 TYPE 2



Annual Cost = \$1051.73

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1051.73	7.02360	\$7386.93

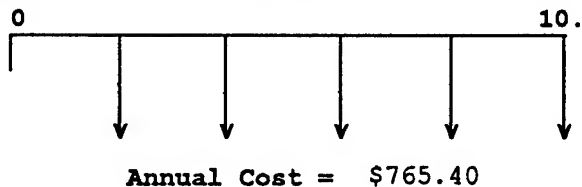
The status quo alternative, Thinner Synthetic Resin Enamel, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

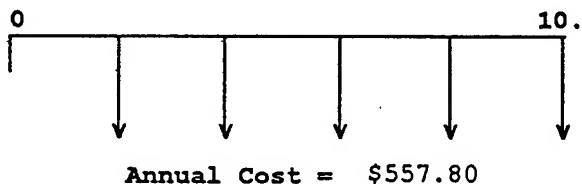
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-T-291E THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$557.80	7.02360	\$3917.76

The proposed alternative, TT-T-291E Thinner, is preferred because of its lower Net Present Value cost.

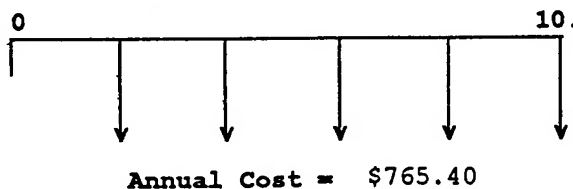
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

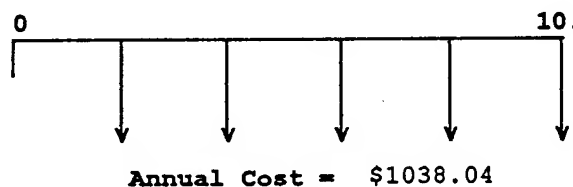
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-T-81772, THINNER, PAINT PRODUCT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1038.04	7.02360	\$7290.78

The status quo alternative, Thinner Synthetic Resin Enamel, is preferred because of its lower Net Present Value cost.

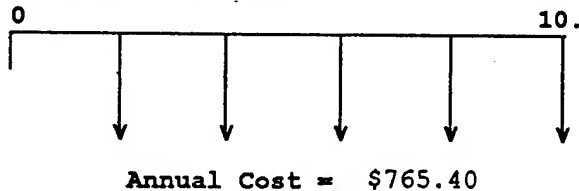
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL

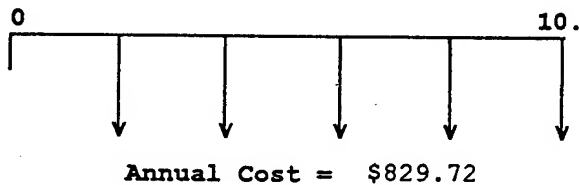


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TL 102 (MIL-T-81772A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$829.72	7.02360	\$5827.62

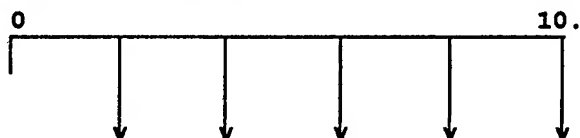
The status quo alternative, Thinner Synthetic Resin Enamel, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



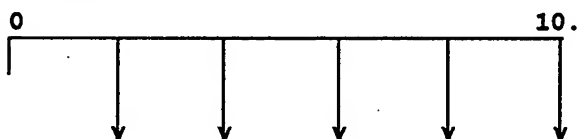
Annual Cost = \$765.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CSD 81772 TYPE I A



Annual Cost = \$1025.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1025.60	7.02360	\$7203.40

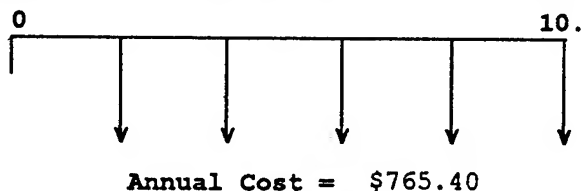
The status quo alternative, Thinner Synthetic Resin Enamel, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL

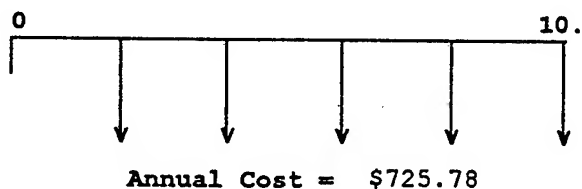


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SYNTHETIC RESIN THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$725.78	7.02360	\$5097.59

The proposed alternative, Synthetic Resin Thinner, is preferred because of its lower Net Present Value cost.

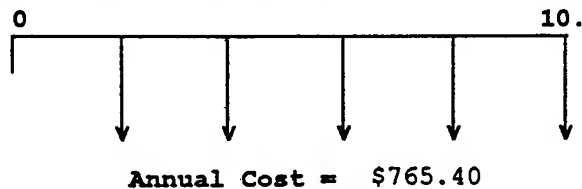
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

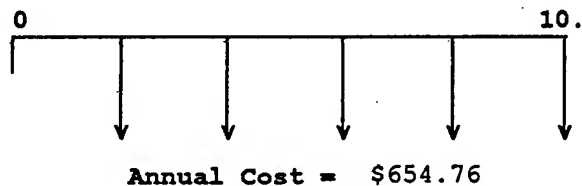
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-T-266D THINNER, PN 1181T4A



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$654.76	7.02360	\$4598.77

The proposed alternative, TT-T-266D Thinner, is preferred because of its lower Net Present Value cost.

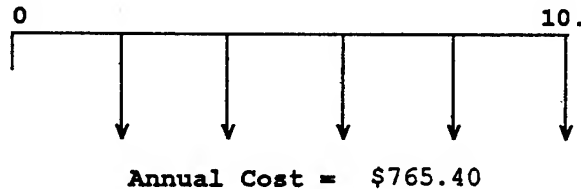
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

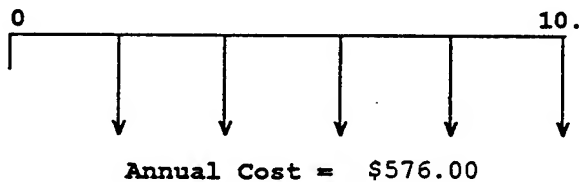
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: PAINT THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$576.00	7.02360	\$4045.59

The proposed alternative, Paint Thinner, is preferred because of its lower Net Present Value cost.

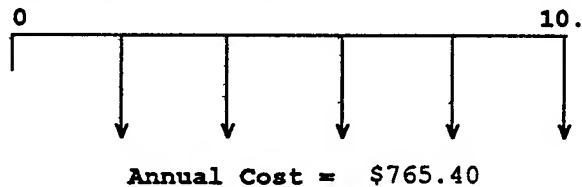
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

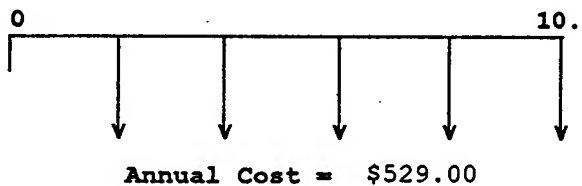
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: CHEVRON THINNER 350H



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$529.00	7.02360	\$3715.48

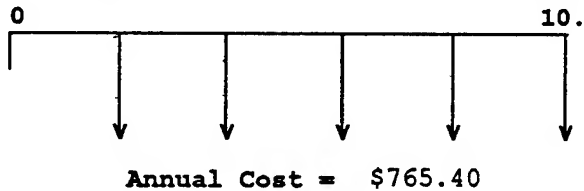
The proposed alternative, Chevron Thinner 350 H, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL

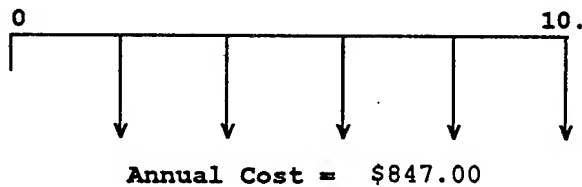


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: LACQUER THINNER KLEAN STRIP, LT-27



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$847.00	7.02360	\$5948.99

The status quo alternative, Thinner Synthetic Resin Enamel, is preferred because of its lower Net Present Value cost.

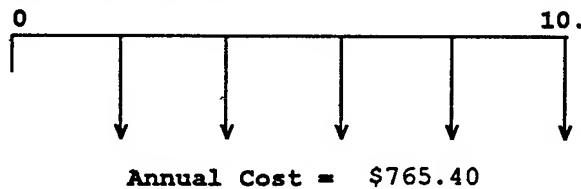
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

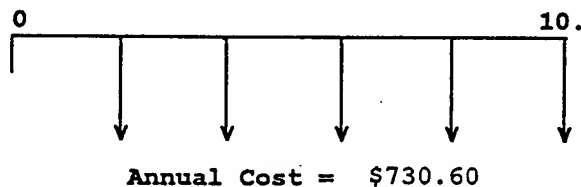
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MINERAL SPIRITS KLEAN STRIP, PN-GMS44



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$730.60	7.02360	\$5131.44

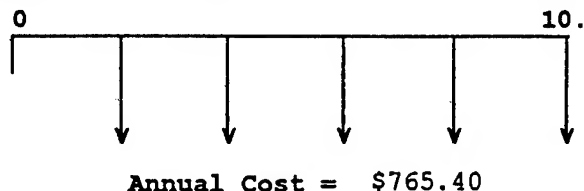
The proposed alternative, Klean-Strip Mineral Spirits, PN-GMS44, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL

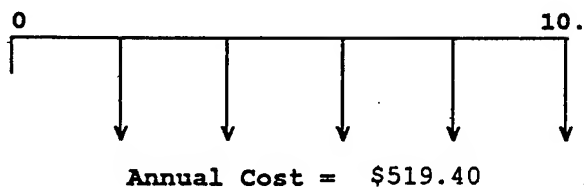


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP PAINT THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$519.40	7.02360	\$3648.06

The proposed alternative, Klean-Strip Paint Thinner, is preferred because of its lower Net Present Value cost.

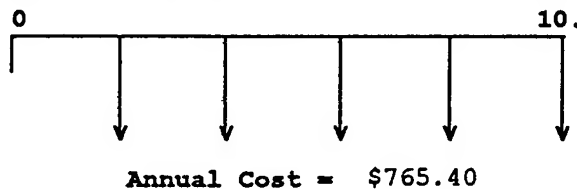
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

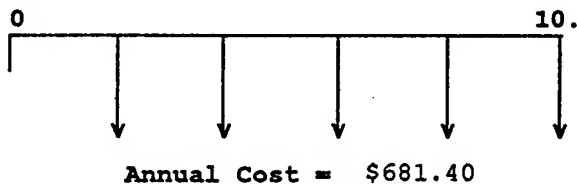
Status Quo Alternative: THINNER SYNTHETIC RESIN ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$765.40	7.02360	\$5375.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$681.40	7.02360	\$4785.88

The proposed alternative, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

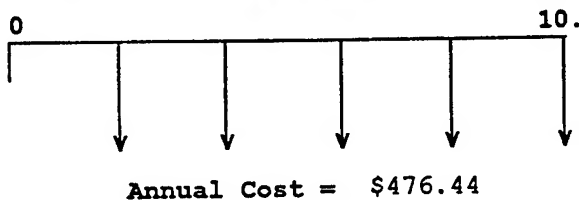
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

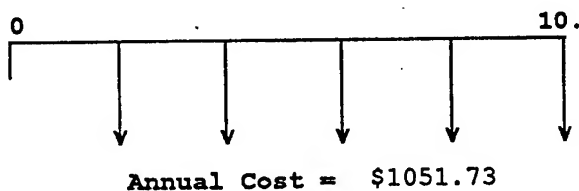


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: T-81772 TYPE 2



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1051.73	7.02360	\$7386.93

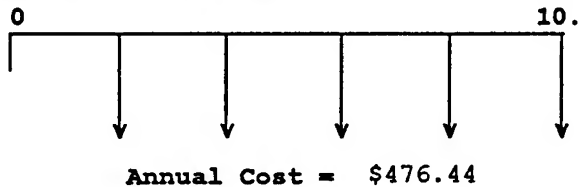
The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

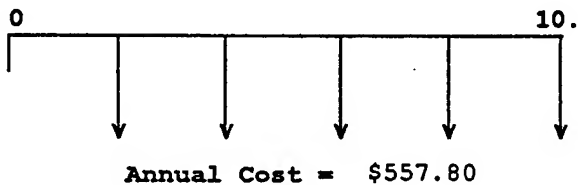


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-T-291E THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$557.80	7.02360	\$3917.76

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

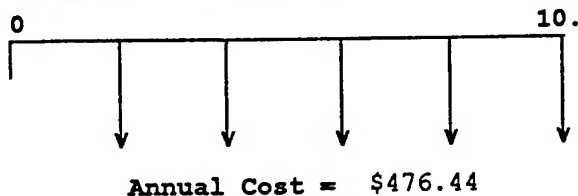
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

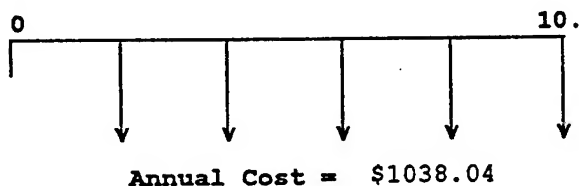
Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-T-81772, THINNER, PAINT PRODUCT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1038.04	7.02360	\$7290.78

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

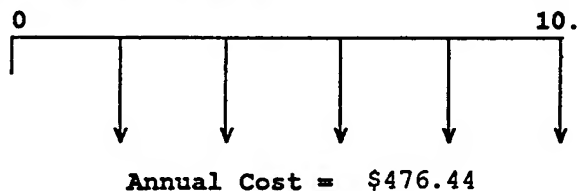
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

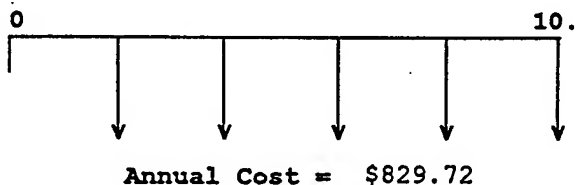
Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TL 102 (MIL-T-81772A)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$829.72	7.02360	\$5827.62

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

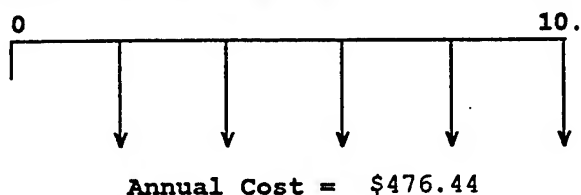
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

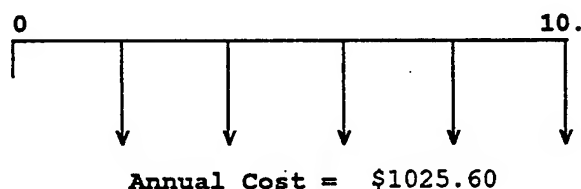


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CSD 81772 TYPE I A



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$1025.60	7.02360	\$7203.40

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

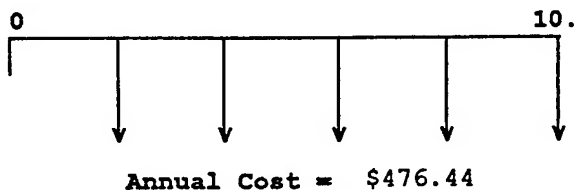
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

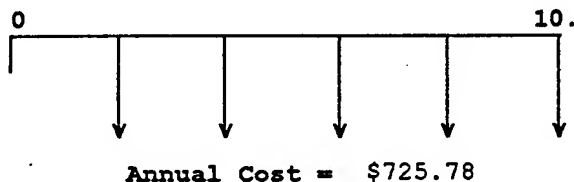


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SYNTHETIC RESIN THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$725.78	7.02360	\$5097.59

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

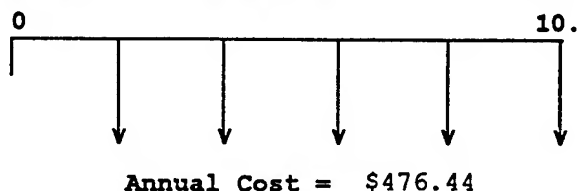
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

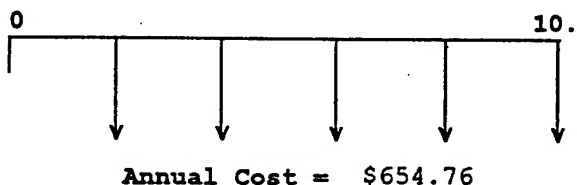


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-T-266D THINNER, PN 1181T4A



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$654.76	7.02360	\$4598.77

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

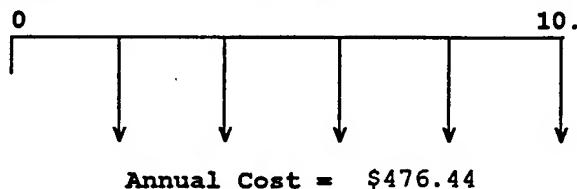
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

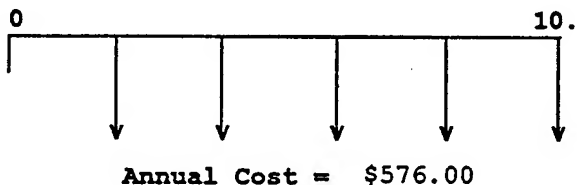
Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: PAINT THINNER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$576.00	7.02360	\$4045.59

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

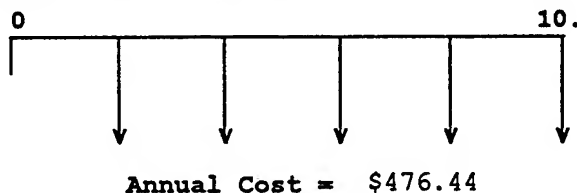
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

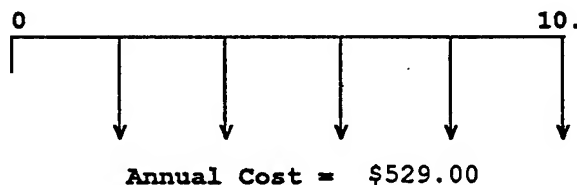


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: CHEVRON THINNER 350H



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$529.00	7.02360	\$3715.48

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

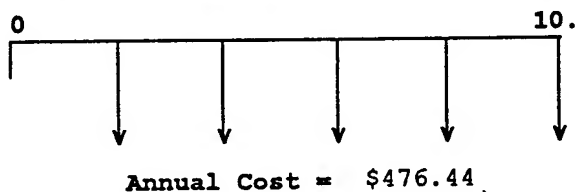
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

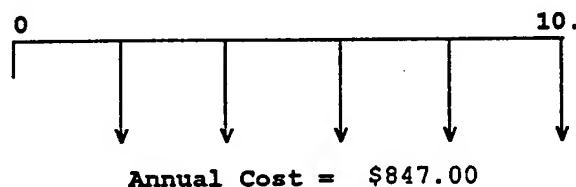


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: LACQUER THINNER KLEAN STRIP, LT-27



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$847.00	7.02360	\$5948.99

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

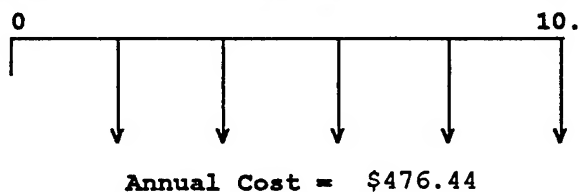
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

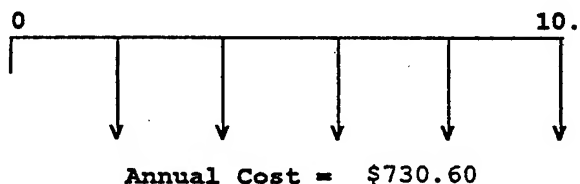
Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MINERAL SPIRITS KLEAN STRIP, PN-GMS44



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$730.60	7.02360	\$5131.44

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

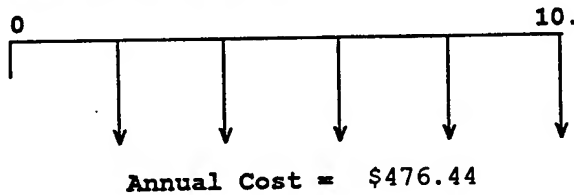
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

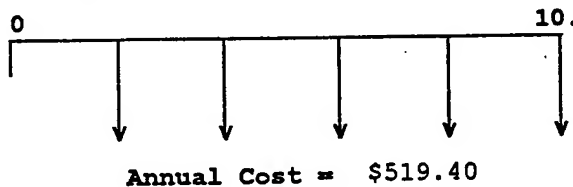


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: KLEAN-STRIP PAINT THINNER



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$519.40	7.02360	\$3648.06

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

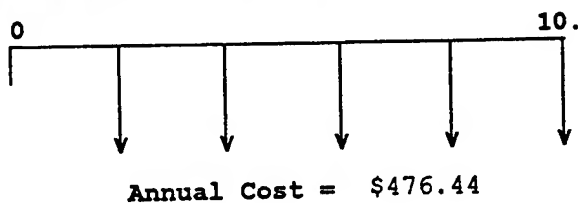
Figure B-2
The Type II Net Present Value Economic Analysis

05/06/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS

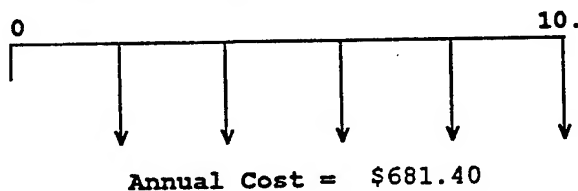


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: REGULAR MINERAL SPIRITS



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$476.44	7.02360	\$3346.32

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$681.40	7.02360	\$4785.88

The status quo alternative, Thinner Paint Type I, Regular Mineral Spirits, is preferred because of its lower Net Present Value cost.

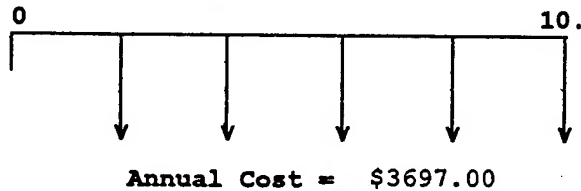
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

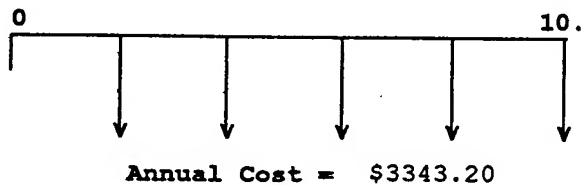
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

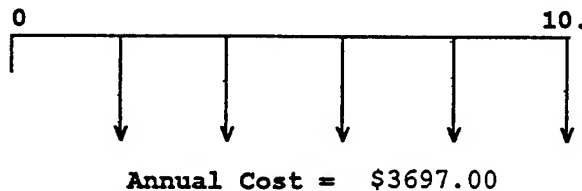
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

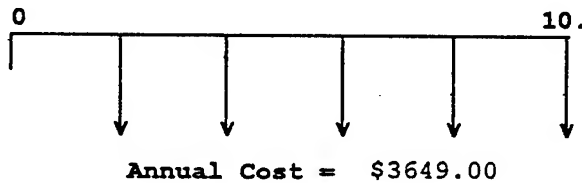
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

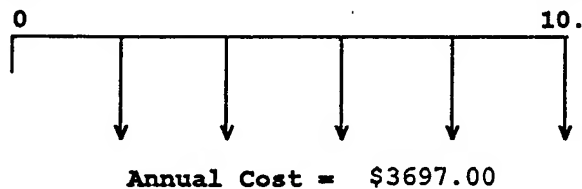
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

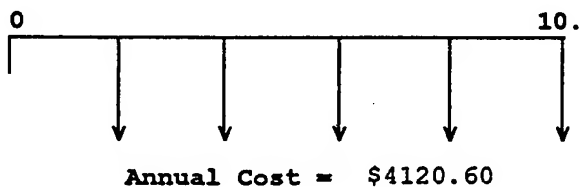


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

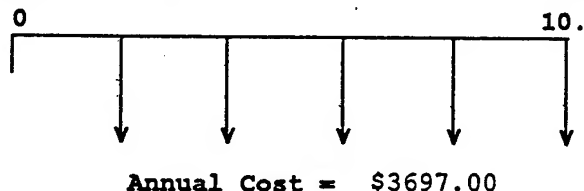
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

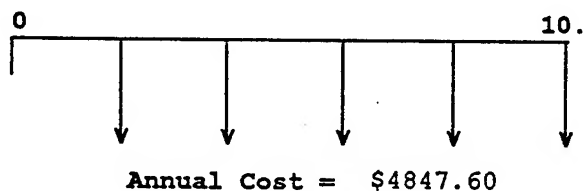
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

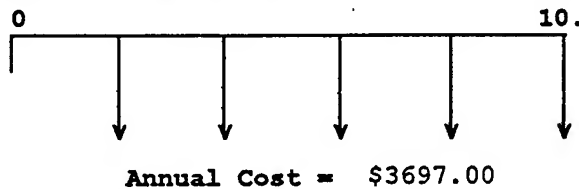
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

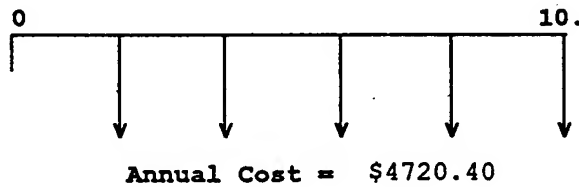


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

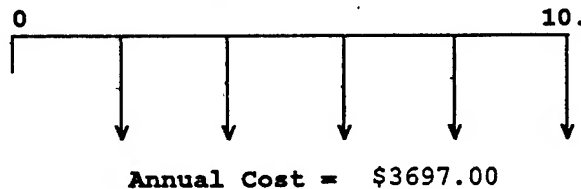
The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

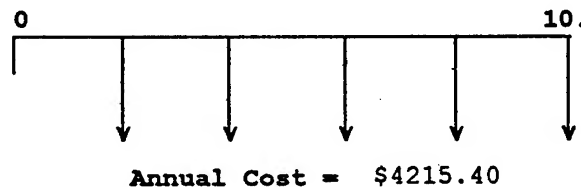


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

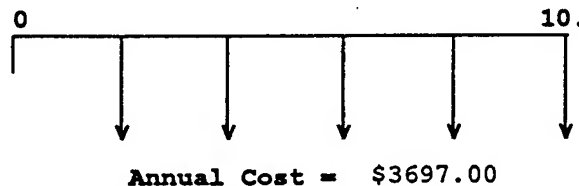
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

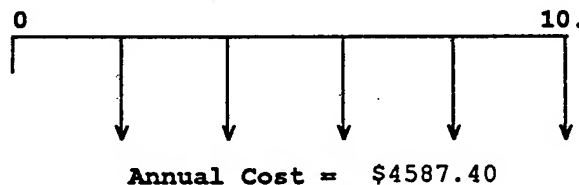


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

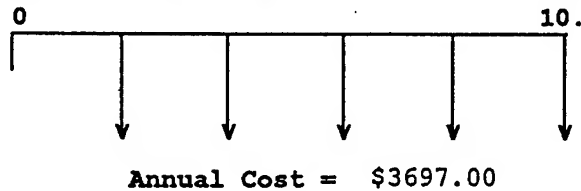
The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

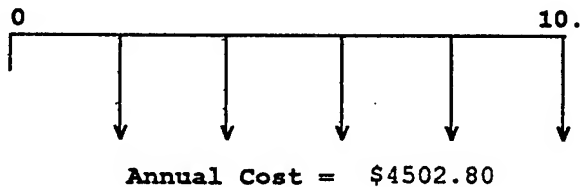


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

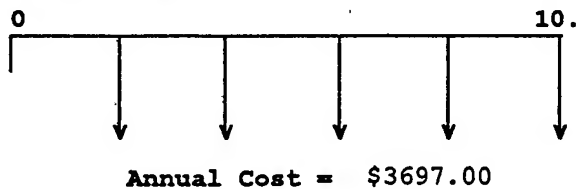
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

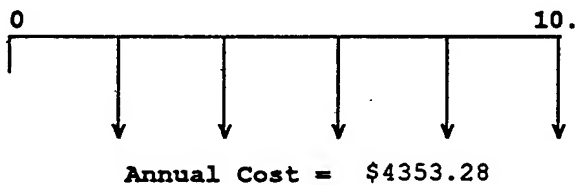
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

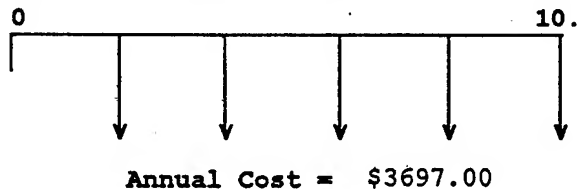
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

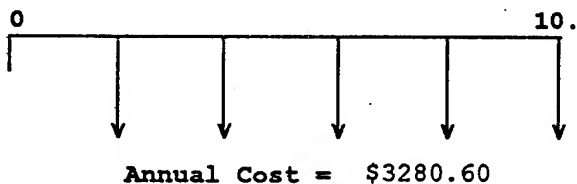
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

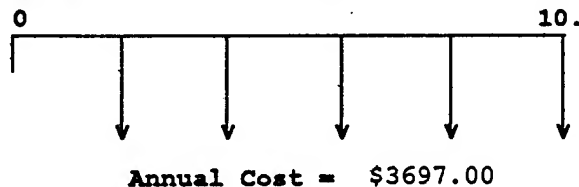
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

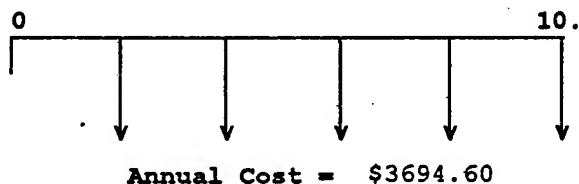
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

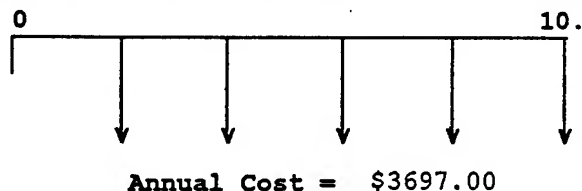
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

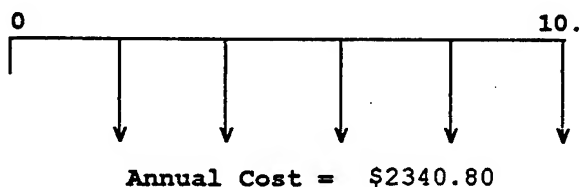


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TTE-516 A), is preferred because of its lower Net Present Value cost.

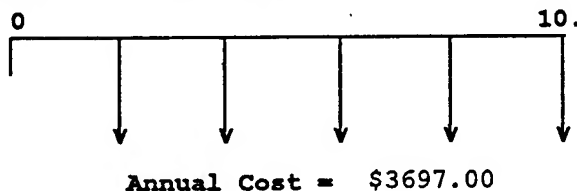
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

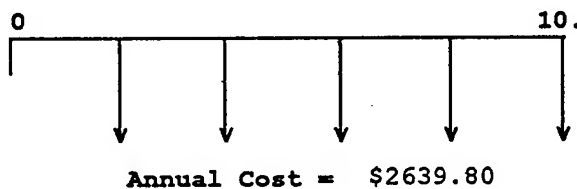
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

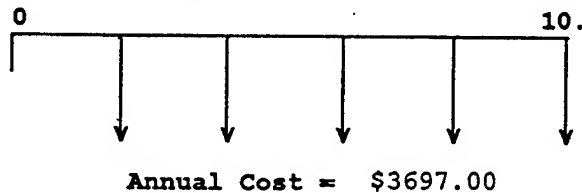
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

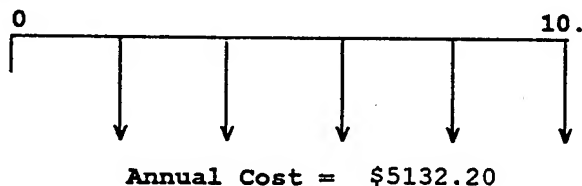
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

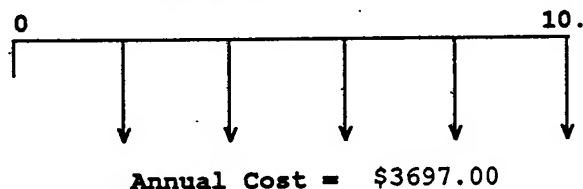
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

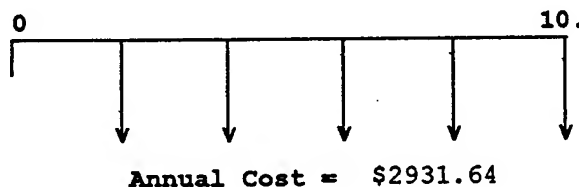
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

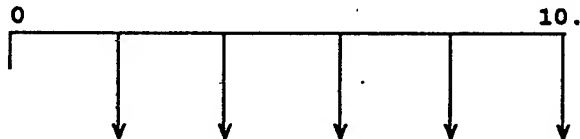
The proposed alternative, Enamel, TT-E-489H Low VOC (15182 Blue), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



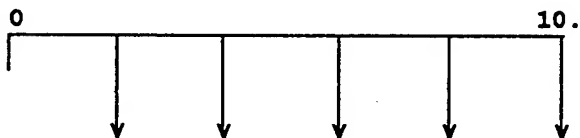
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

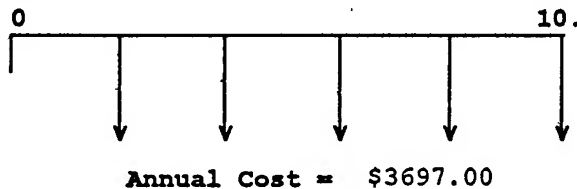
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

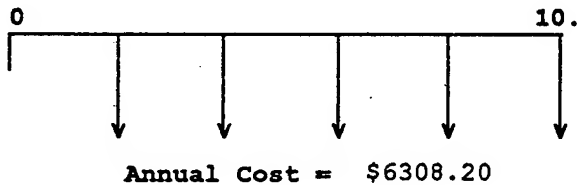


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

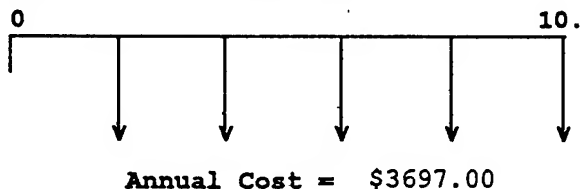
The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

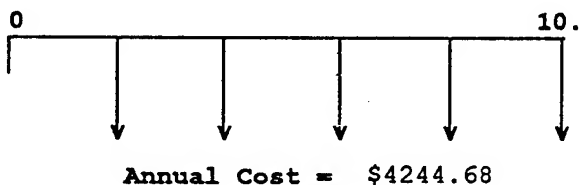


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

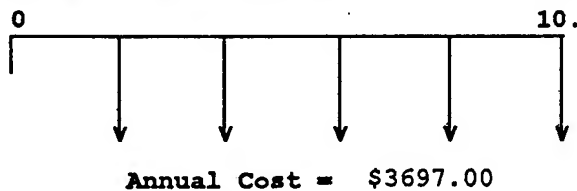
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT

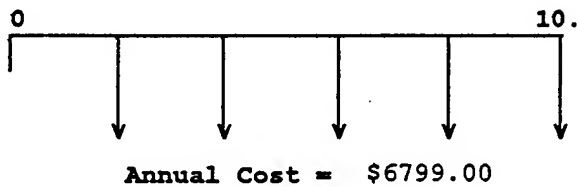


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

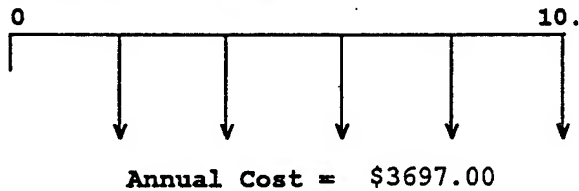
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

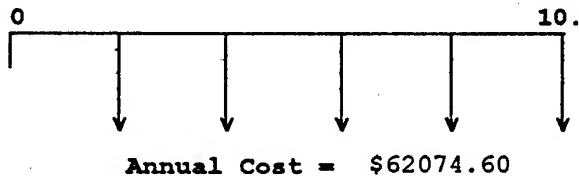
Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

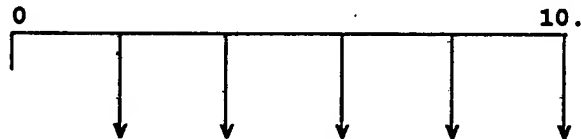
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON HIGH HEAT SPRAY PAINT



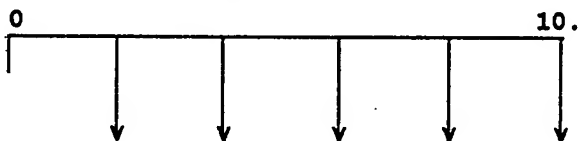
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Annual Cost = \$15113.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Krylon High Heat Spray Paint, is preferred because of its lower Net Present Value cost.

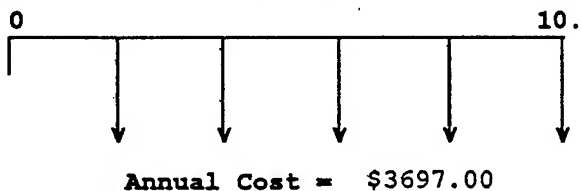
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

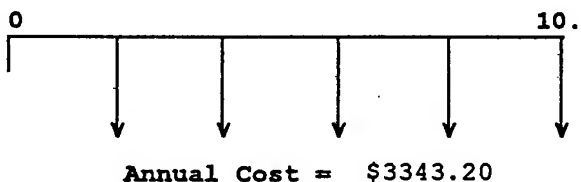
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

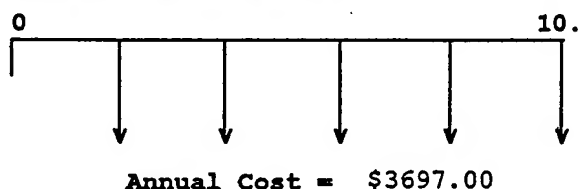
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

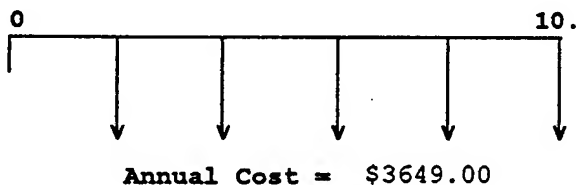
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

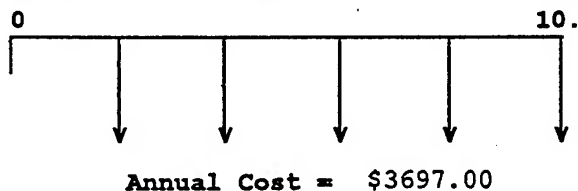
The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT

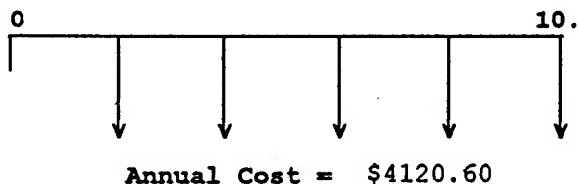


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

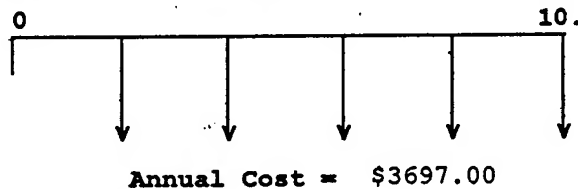
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT

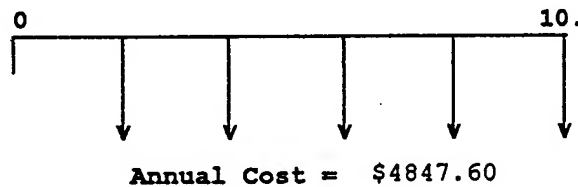


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost:

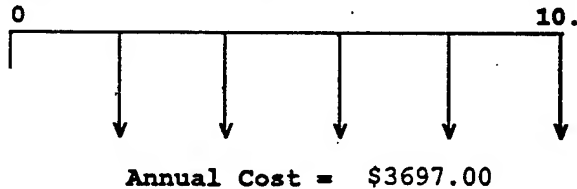
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

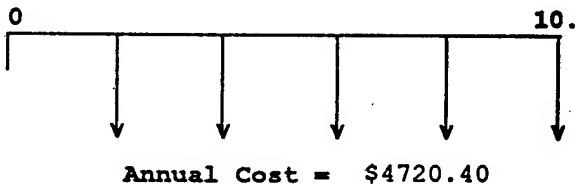
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

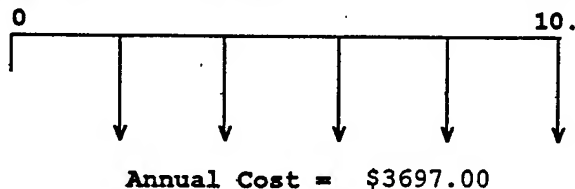
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT

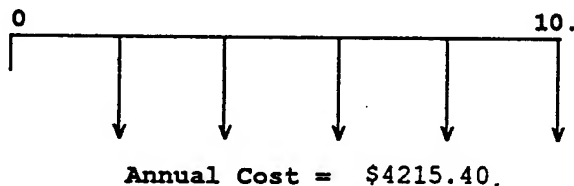


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

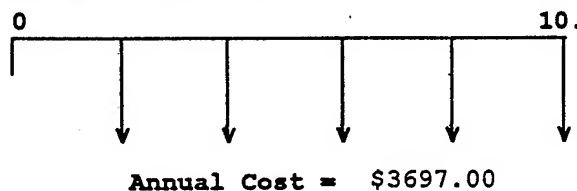
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

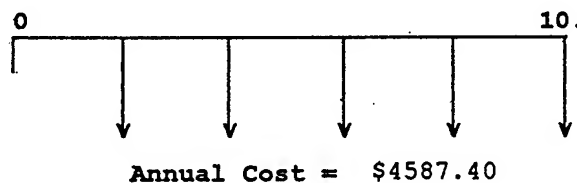
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

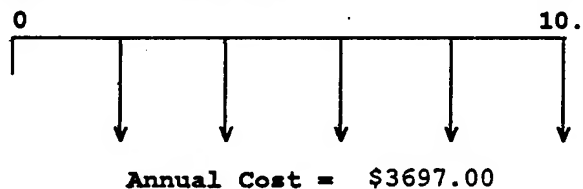
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT

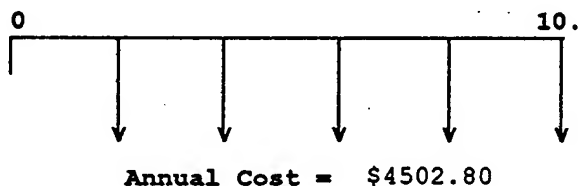


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

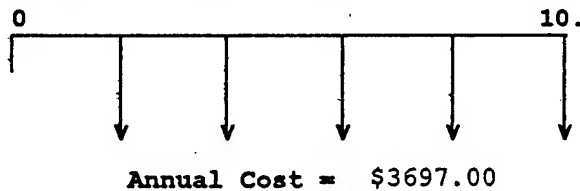
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

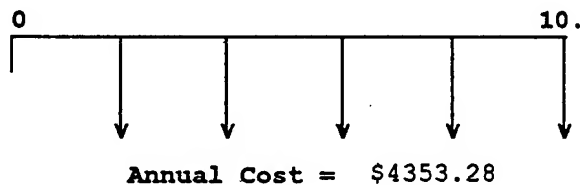
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

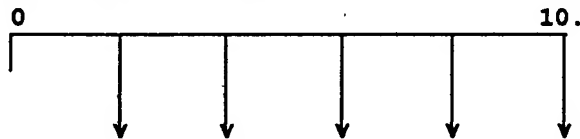
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



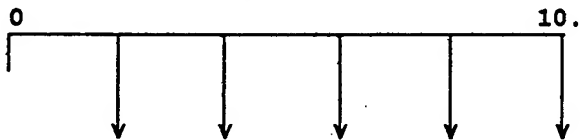
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

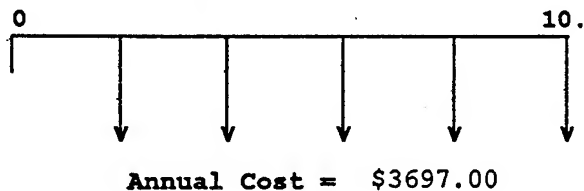
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

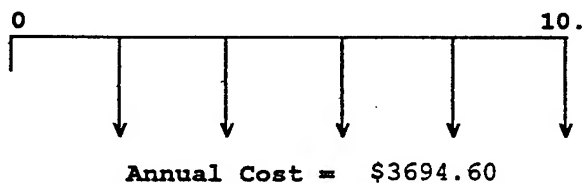
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TTE496 A 14391, is preferred because of its lower Net Present Value cost.

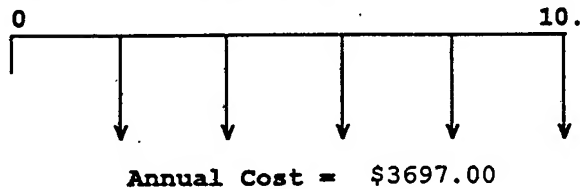
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

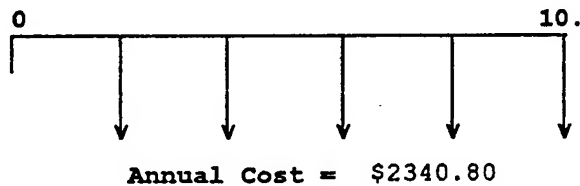
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TTE-516A), is preferred because of its lower Net Present Value cost.

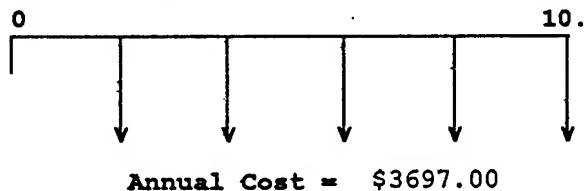
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

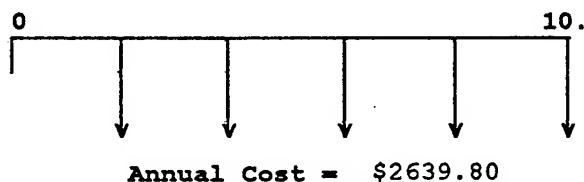
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

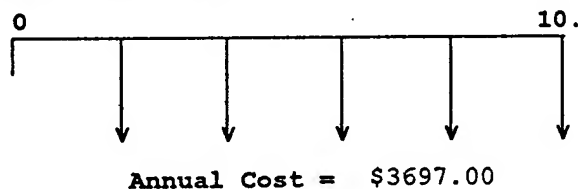
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

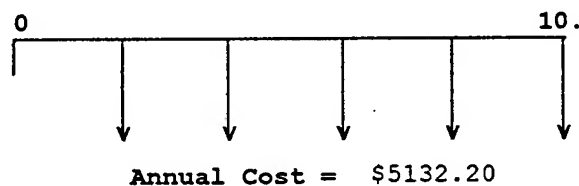
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

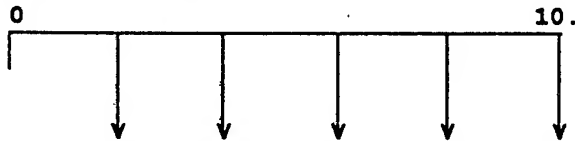
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



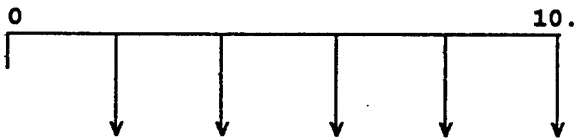
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Annual Cost = \$2931.64

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (15182 Blue), is preferred because of its lower Net Present Value cost.

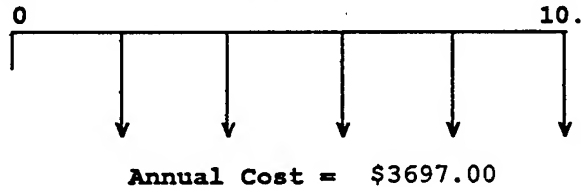
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

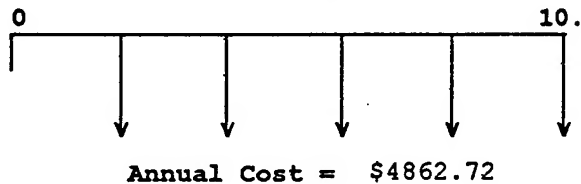
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

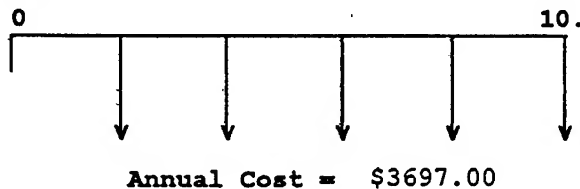
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

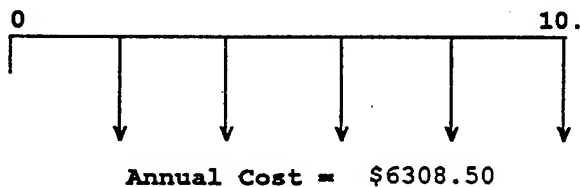
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.50	7.02360	\$44308.38

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

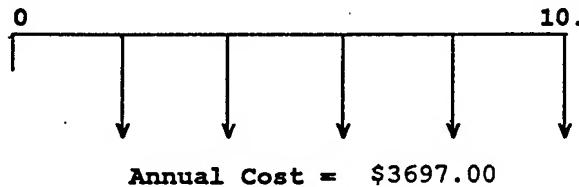
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT

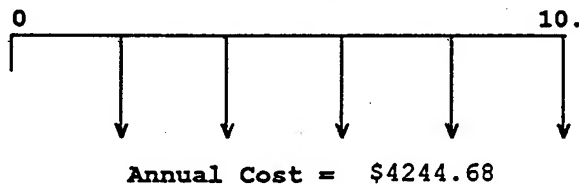


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

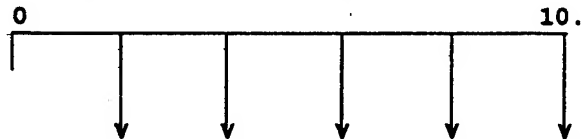
The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



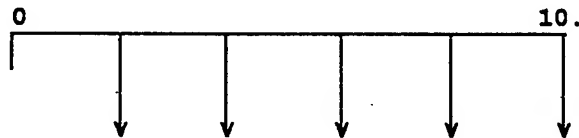
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Annual Cost = \$6799.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

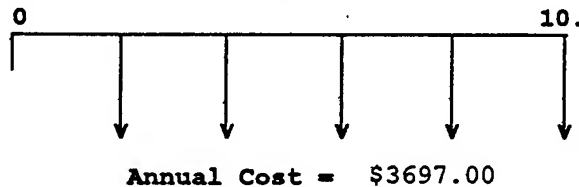
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

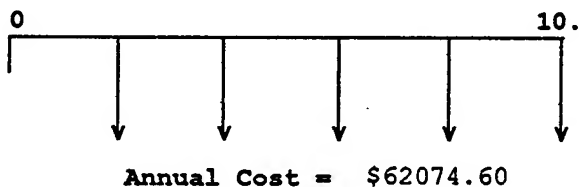
Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

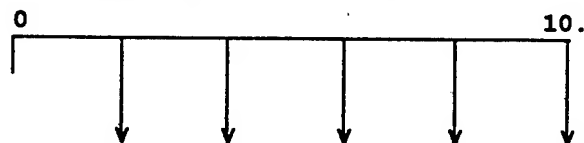
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: KRYLON 1402 HIGH HEAT ALUMINUM PAINT



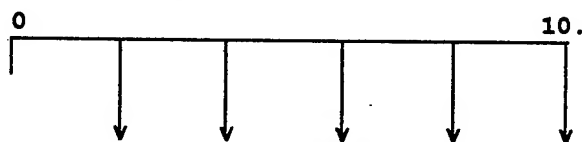
Annual Cost = \$3697.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Annual Cost = \$15113.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3697.00	7.02360	\$25966.25

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Krylon 1402 High Heat Aluminum Paint, is preferred because of its lower Net Present Value cost.

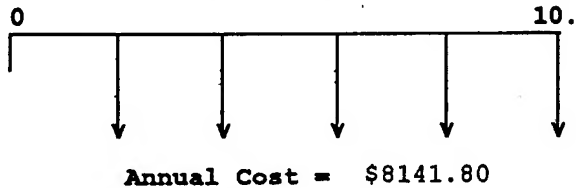
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

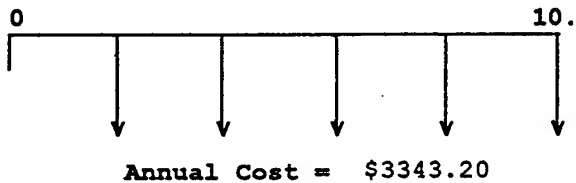


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

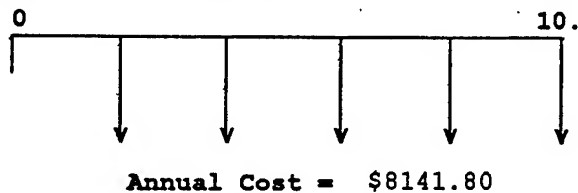
The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

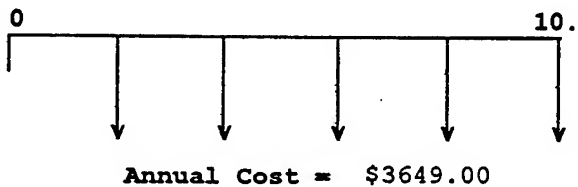


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

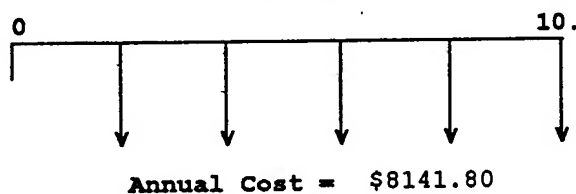
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

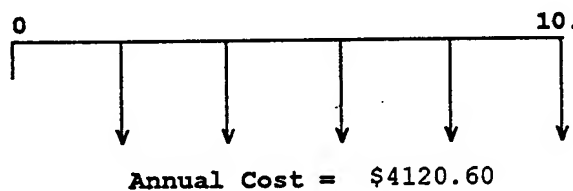


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

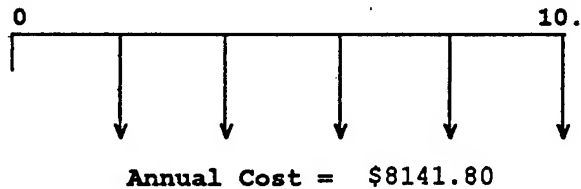
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

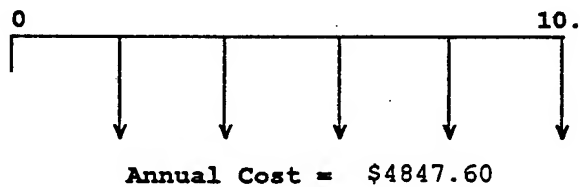


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

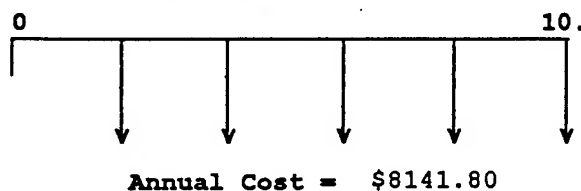
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

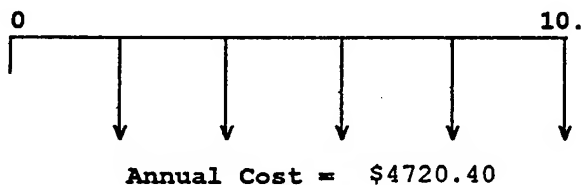


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

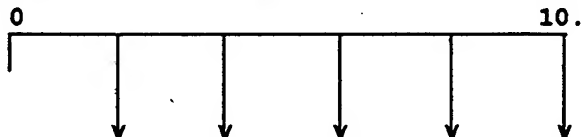
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



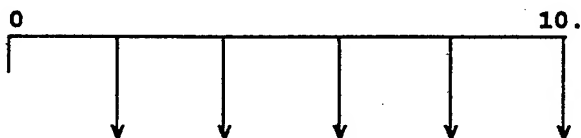
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Annual Cost = \$4215.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss Low VOC-Compliant, is preferred because of its lower Net Present Value cost.

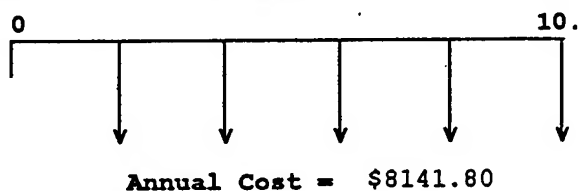
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

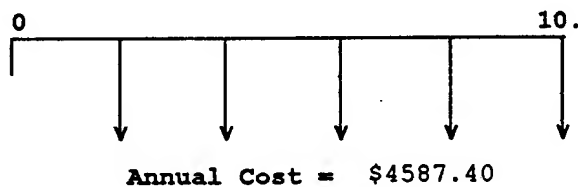


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

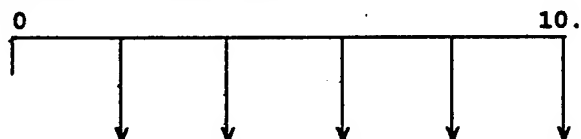
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



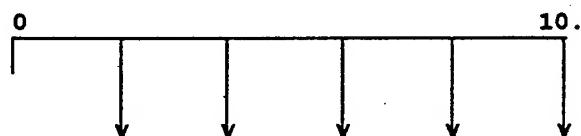
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

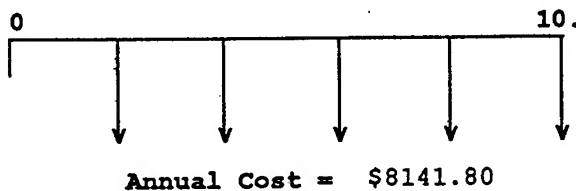
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

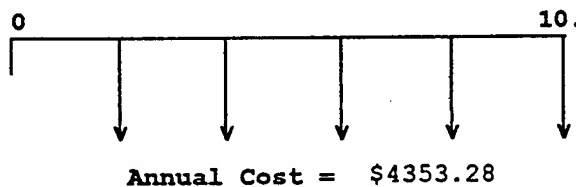


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The proposed alternative, Polyurethane Coating Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

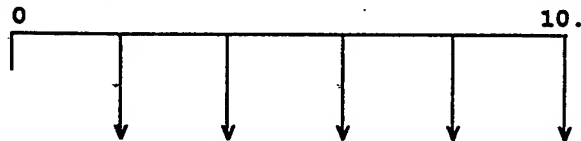
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



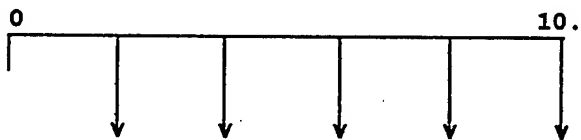
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

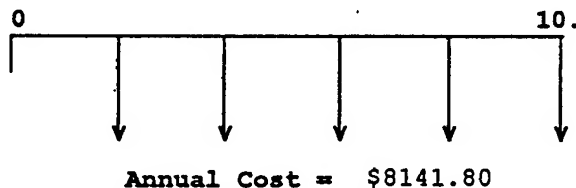
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

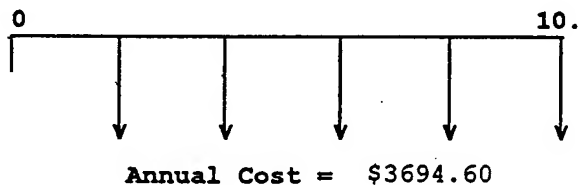
Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

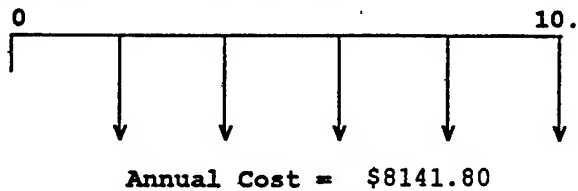
The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

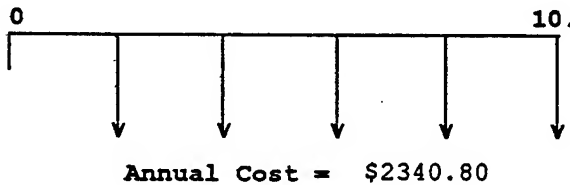


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TTE-516A), is preferred because of its lower Net Present Value cost.

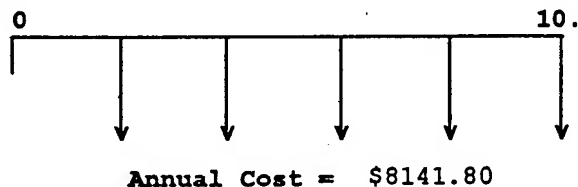
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

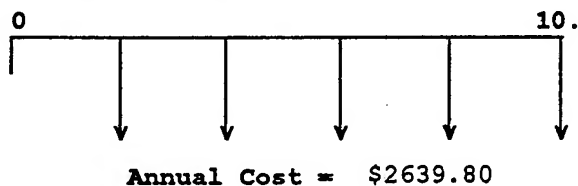
Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

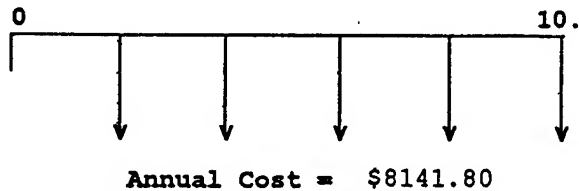
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

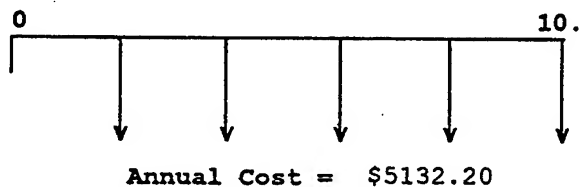
Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

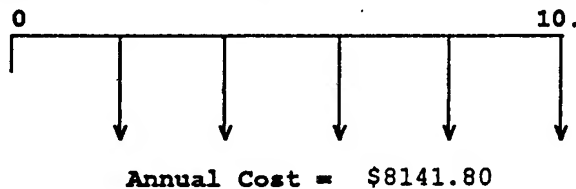
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

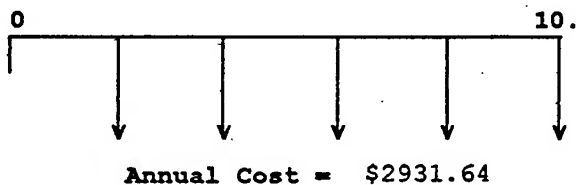
Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (15182 Blue), is preferred because of its lower Net Present Value cost.

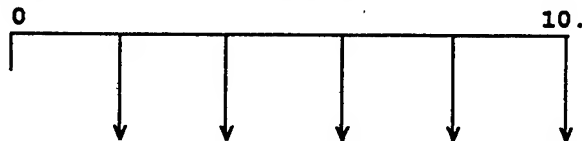
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



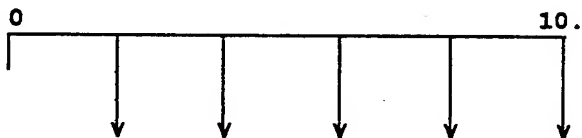
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

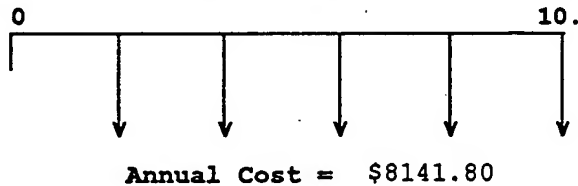
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

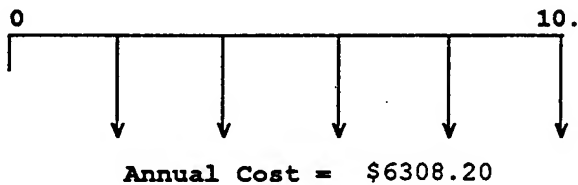


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

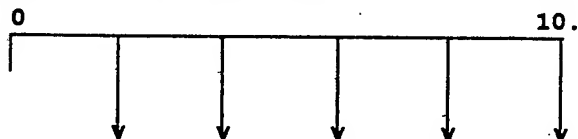
The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



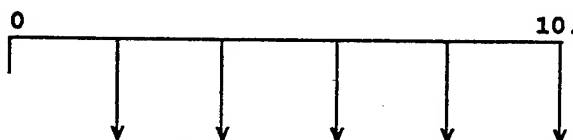
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

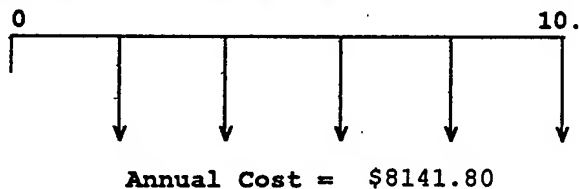
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT

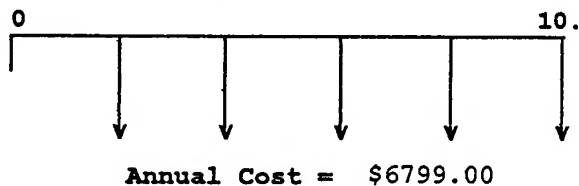


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

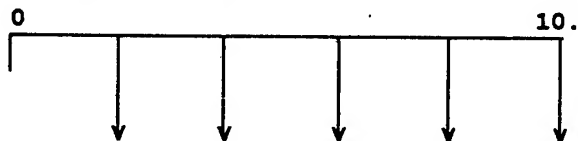
The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



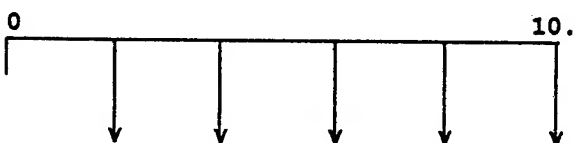
Annual Cost = \$8141.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Annual Cost = \$62074.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Epoxy, Comp B, MIL-P-85582B, TY 1 CL C, is preferred because of its lower Net Present Value cost.

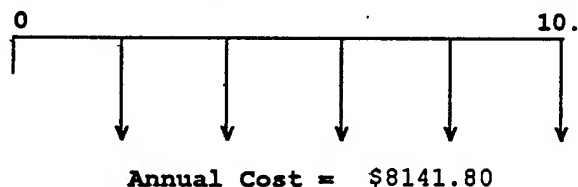
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

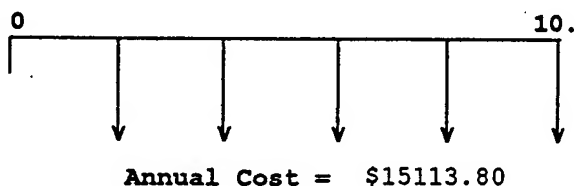
Status Quo Alternative: EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8141.80	7.02360	\$57184.75

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Epoxy, Comp B, MIL-P-85582B, TY 1 CL C, is preferred because of its lower Net Present Value cost.

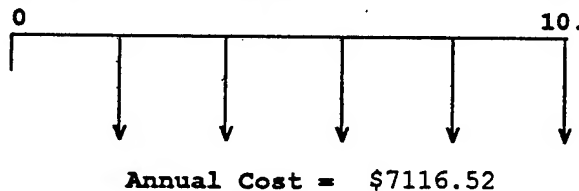
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

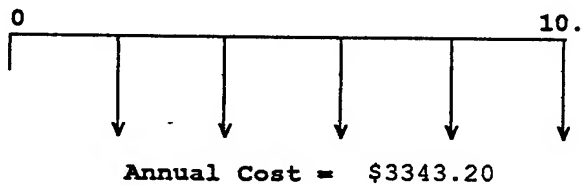


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

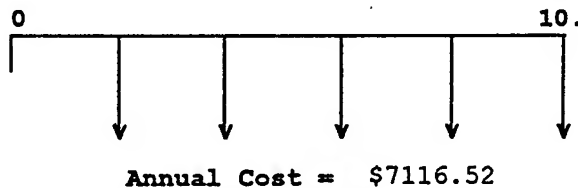
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

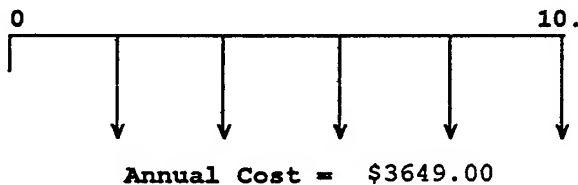


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

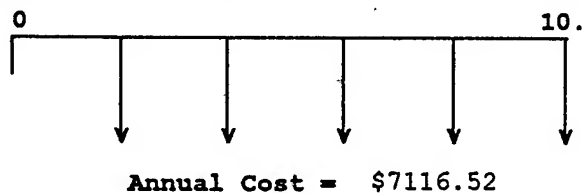
The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

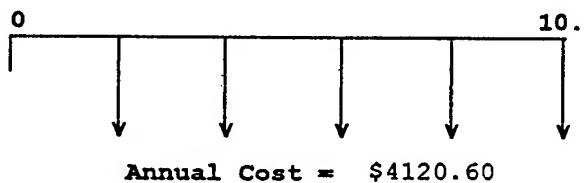


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

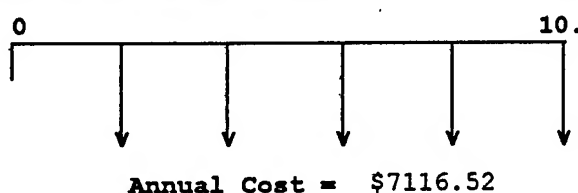
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

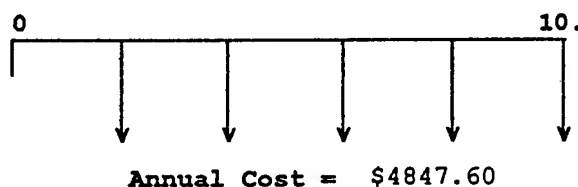
Status Quo Alternative: ALIPHATIC ISOCYANATE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

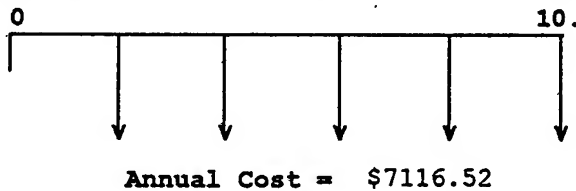
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

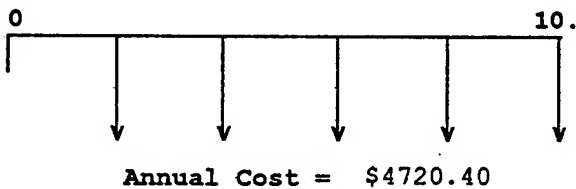


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

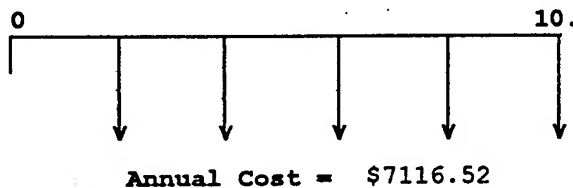
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

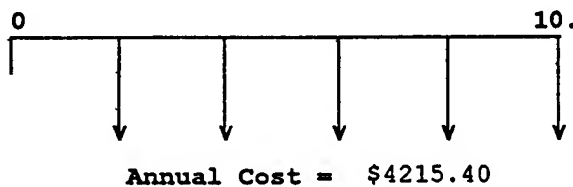


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss VOC-Compliant, is preferred because of its lower Net Present Value cost.

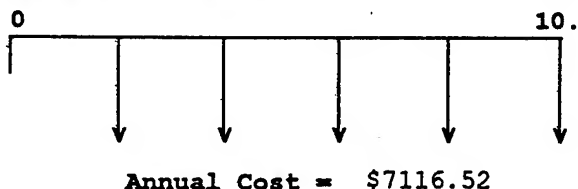
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

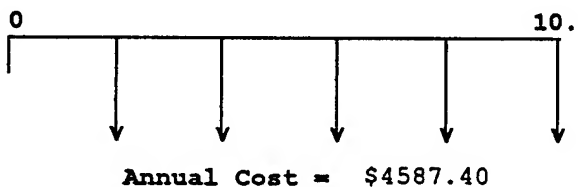


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

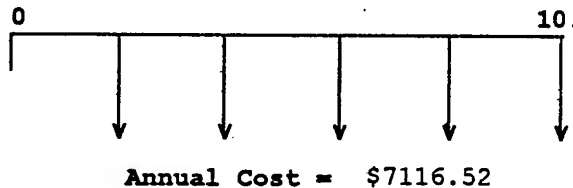
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

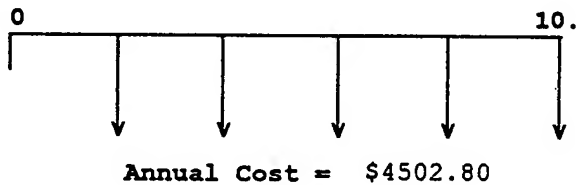


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

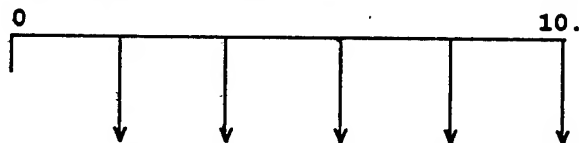
The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



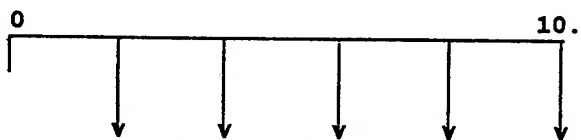
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Annual Cost = \$4353.28

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

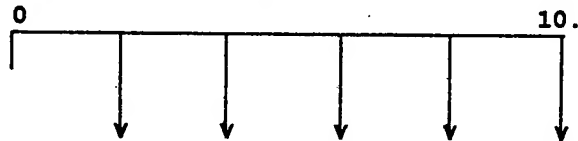
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



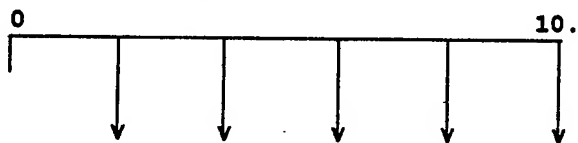
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

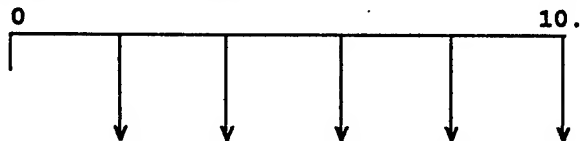
The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



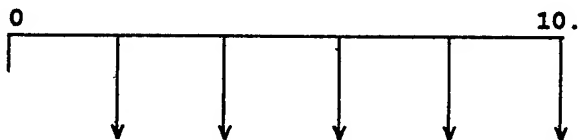
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

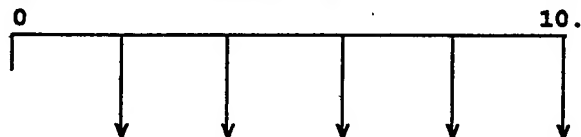
The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



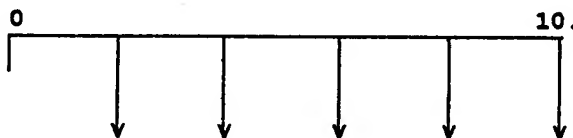
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

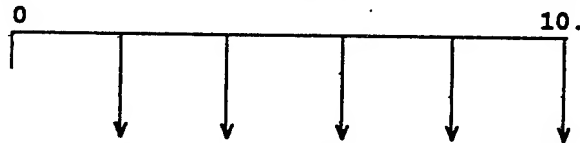
**Figure B-2
The Type II Net Present Value Economic Analysis**

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



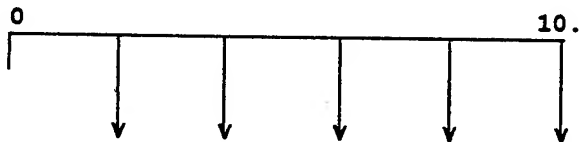
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

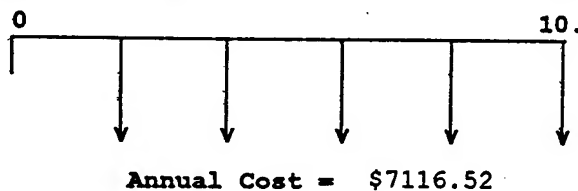
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

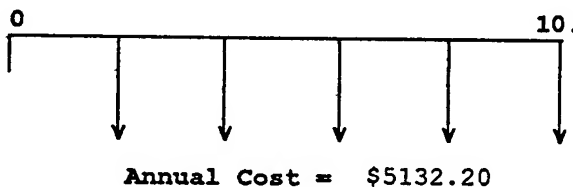
Status Quo Alternative: ALIPHATIC ISOCYANATE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

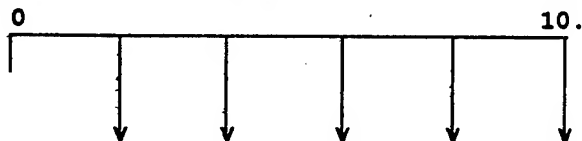
The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



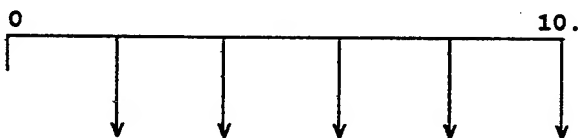
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Annual Cost = \$2931.64

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (15182 Blue), is preferred because of its lower Net Present Value cost.

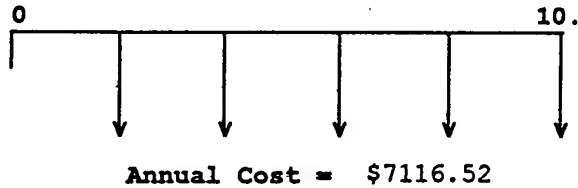
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

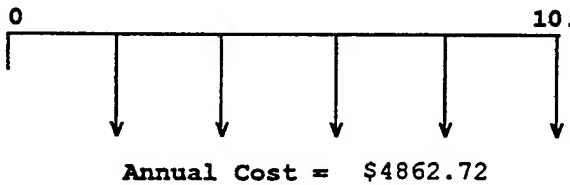


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

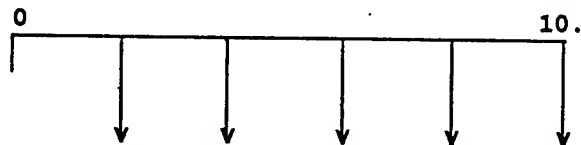
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE



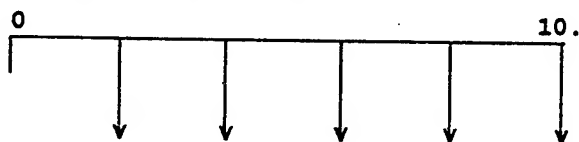
Annual Cost = \$7116.52

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

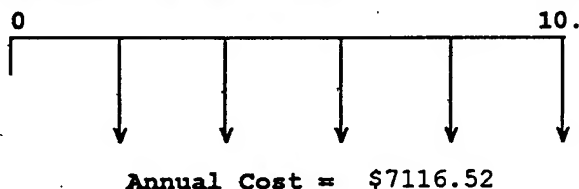
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

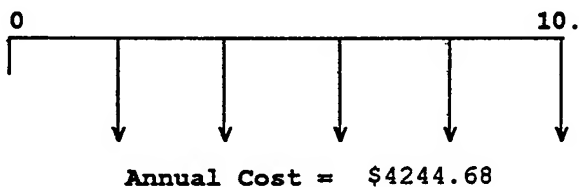
Status Quo Alternative: ALIPHATIC ISOCYANATE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

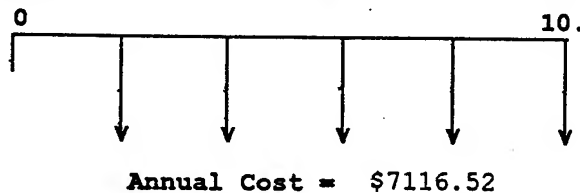
Figure B-2
The Type II Net Present Value Economic Analysis

05/07/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: ALIPHATIC ISOCYANATE

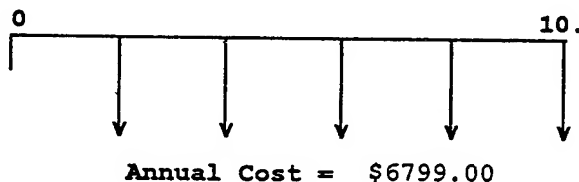


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B; is preferred because of its lower Net Present Value cost.

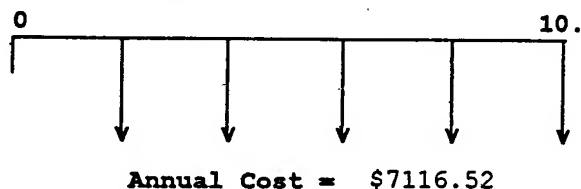
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

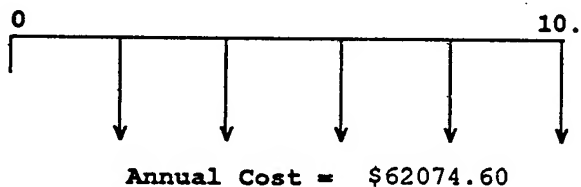
Status Quo Alternative: ALIPHATIC ISOCYANATE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Aliphatic Isocyanate, is preferred because of its lower Net Present Value cost.

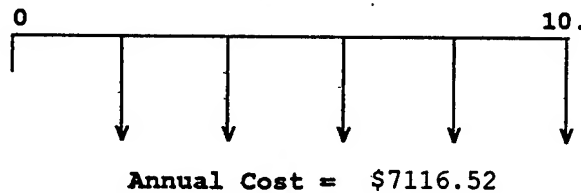
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

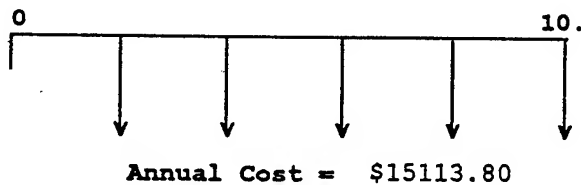
Status Quo Alternative: ALIPHATIC ISOCYANATE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7116.52	7.02360	\$49983.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Aliphatic Isocyanate, is preferred because of its lower Net Present Value cost.

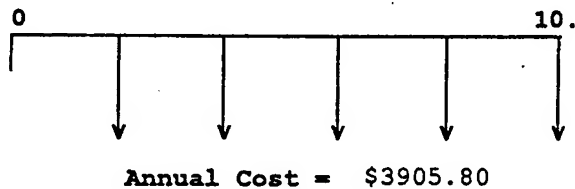
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

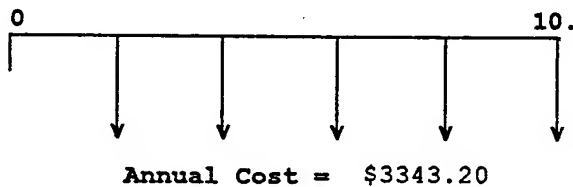
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

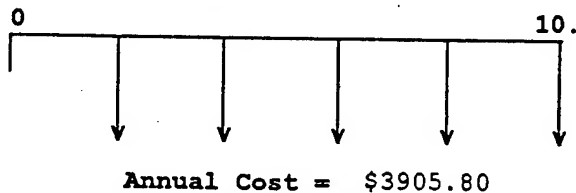
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

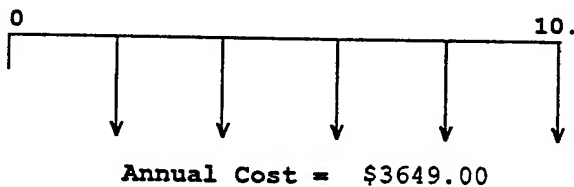
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

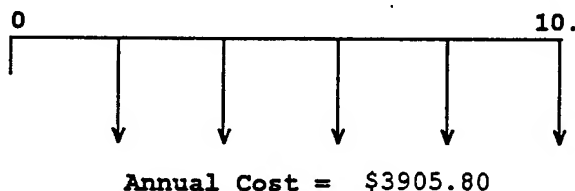
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

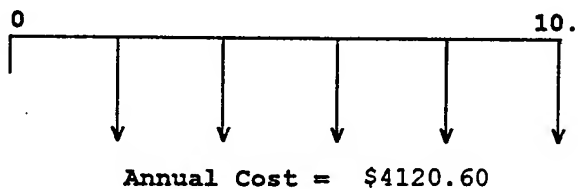


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

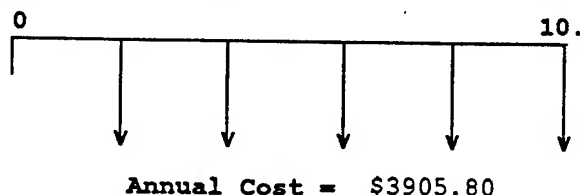
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

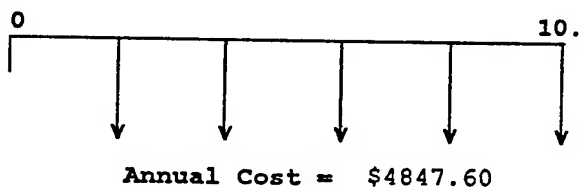


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

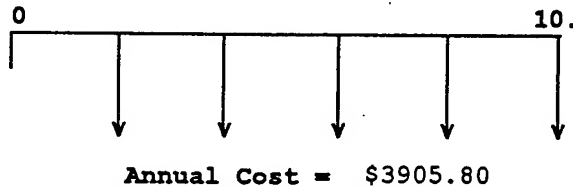
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

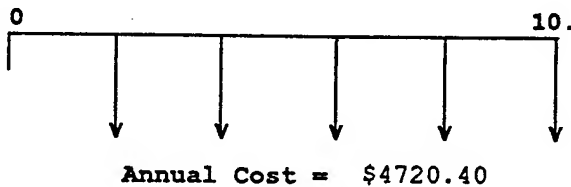
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

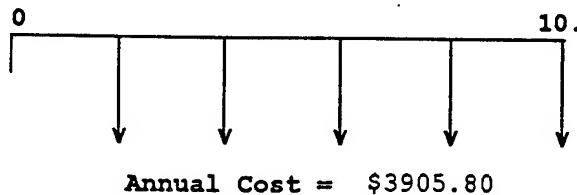
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

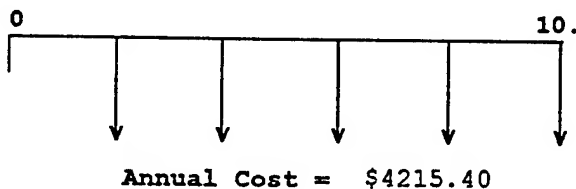


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

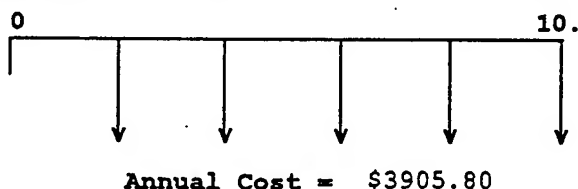
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

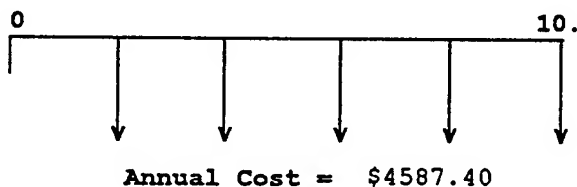
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

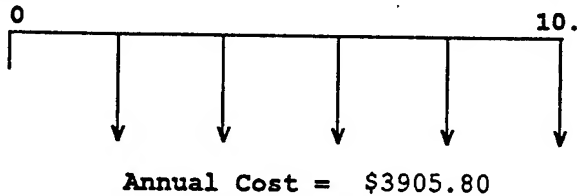
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

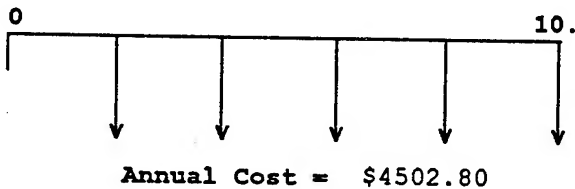
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

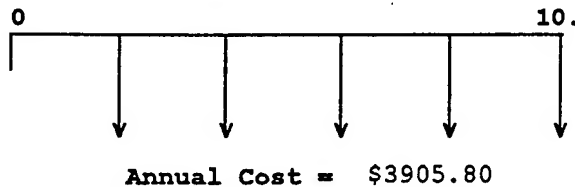
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

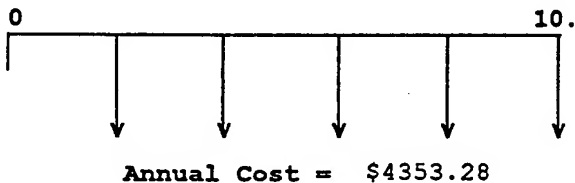


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

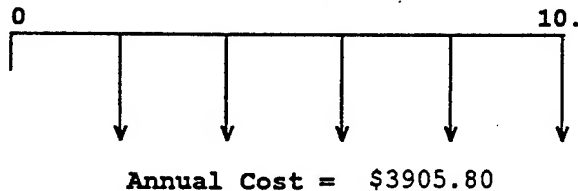
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

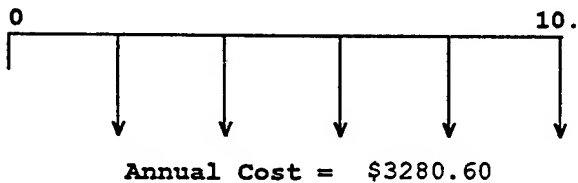


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

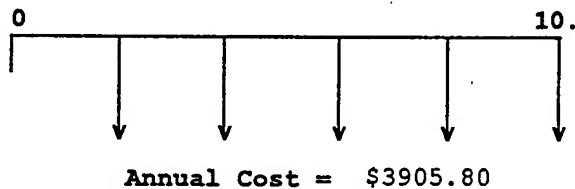
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

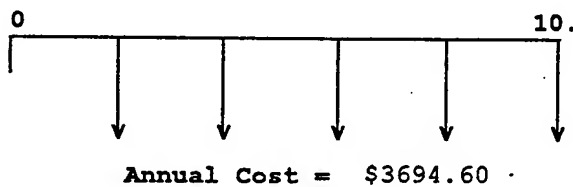
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

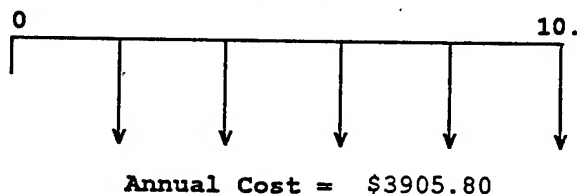
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

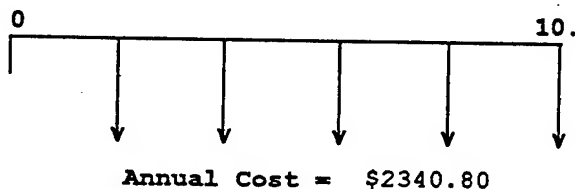
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

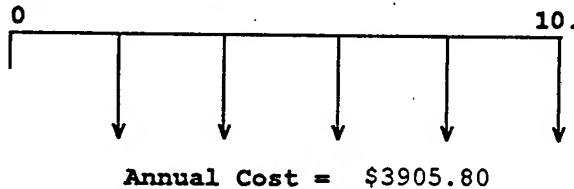
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

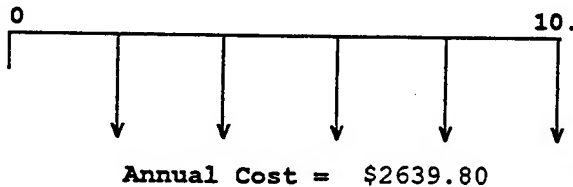
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

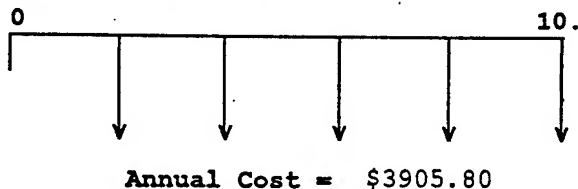
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

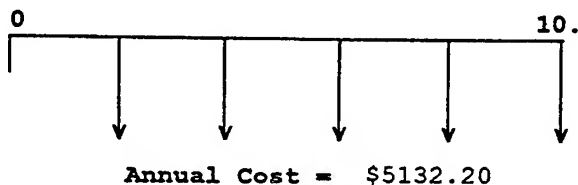
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The status quo alternative, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

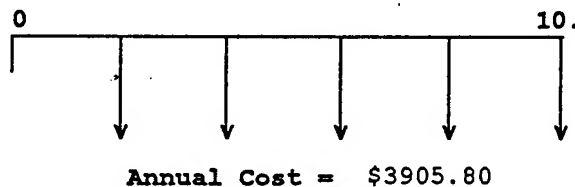
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

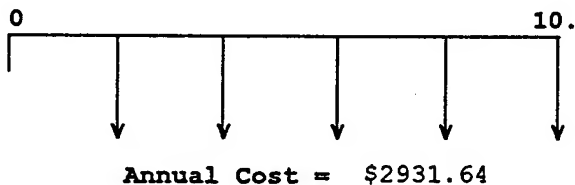
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost.

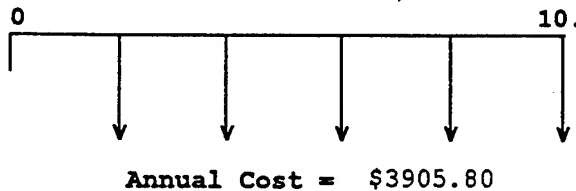
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

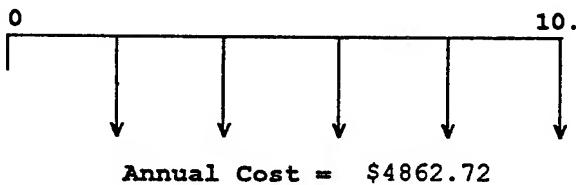


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

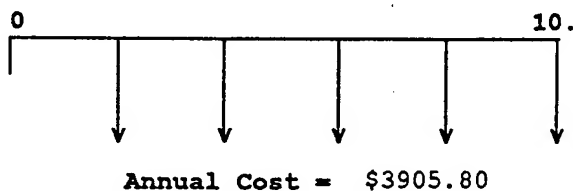
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

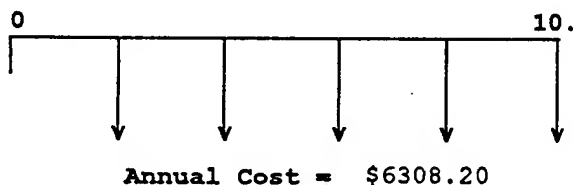
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

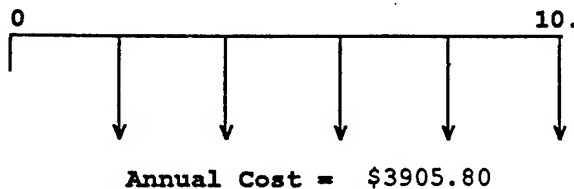
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

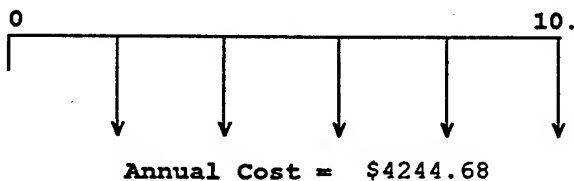
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

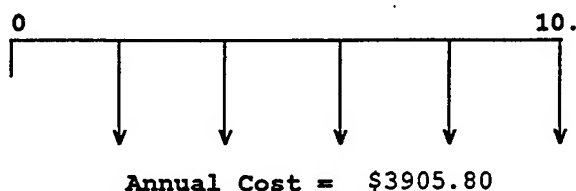
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

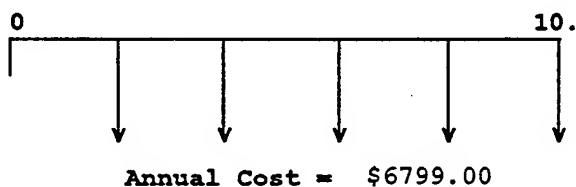
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

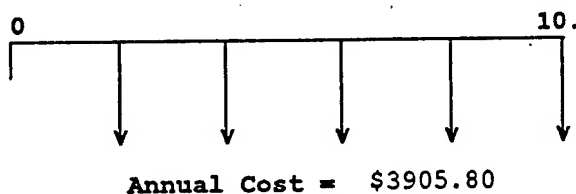
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE

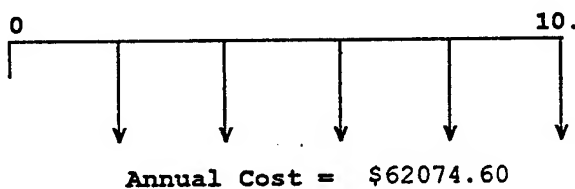


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

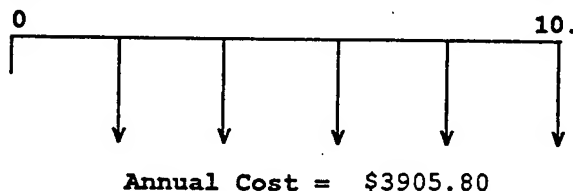
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

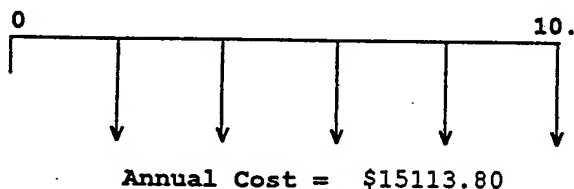
Status Quo Alternative: POLYURETHANE



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3905.80	7.02360	\$27432.78

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Enamel, Polyurethane, MIL-C-85285B, 17925 TY I, is preferred because of its lower Net Present Value cost.

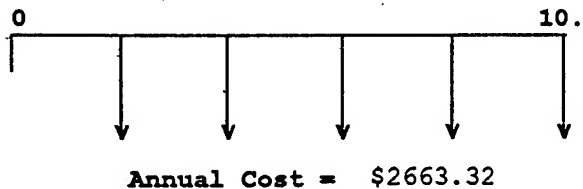
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

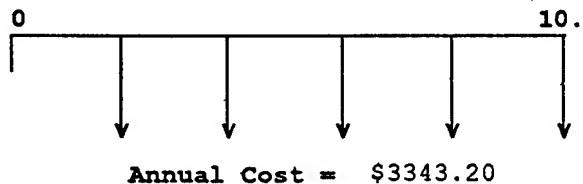
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

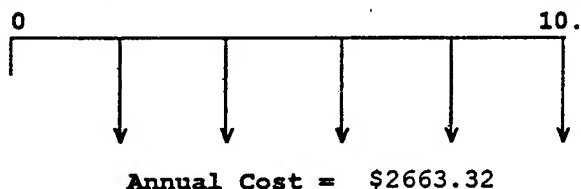
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

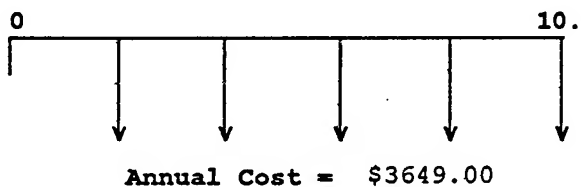
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

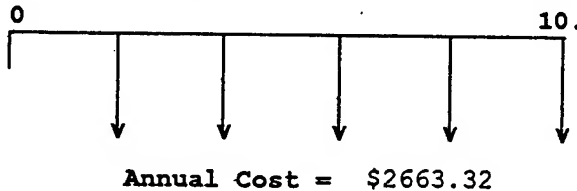
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

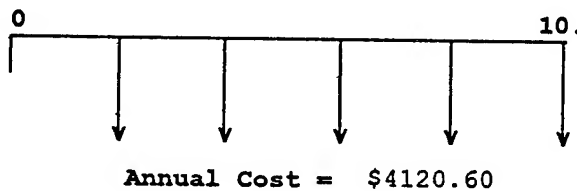


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

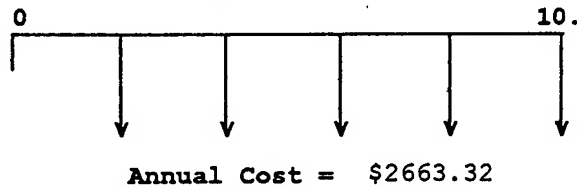
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

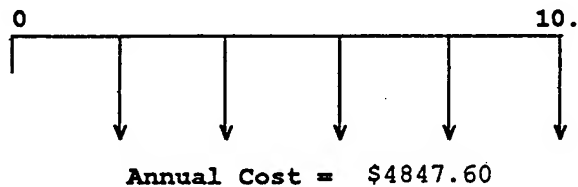


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

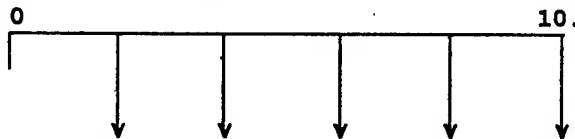
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER



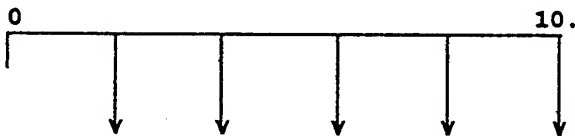
Annual Cost = \$2663.32

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Annual Cost = \$4720.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

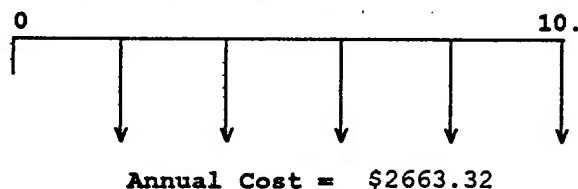
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

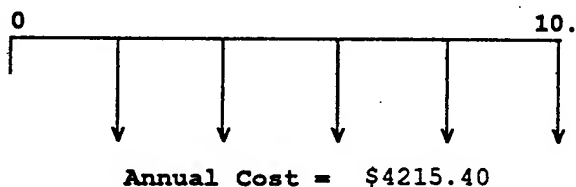
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

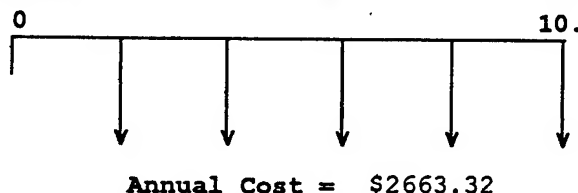
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

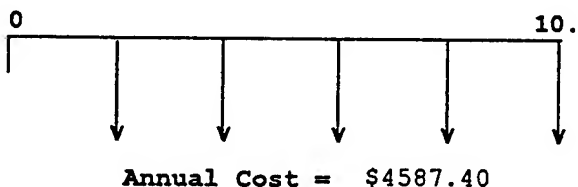


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

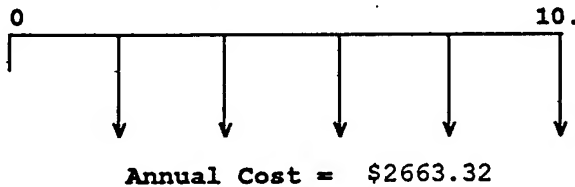
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

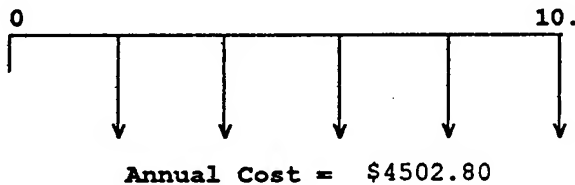


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

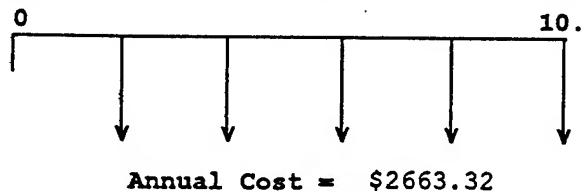
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

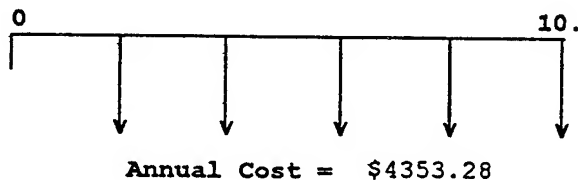


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

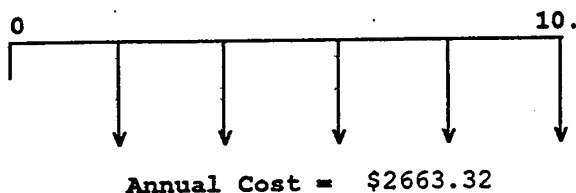
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

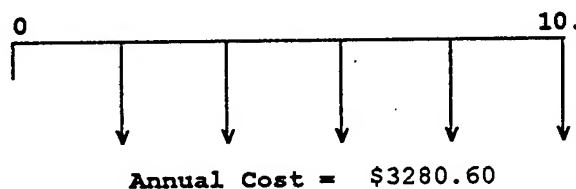
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

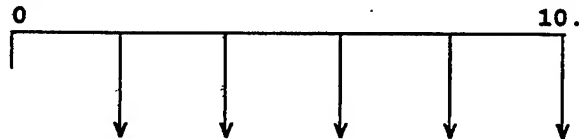
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER



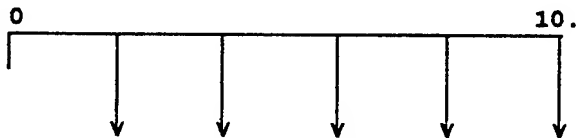
Annual Cost = \$2663.32

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

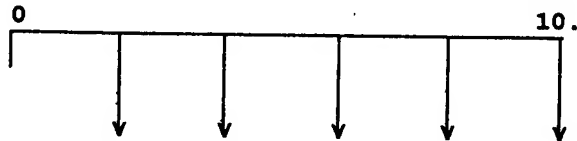
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER



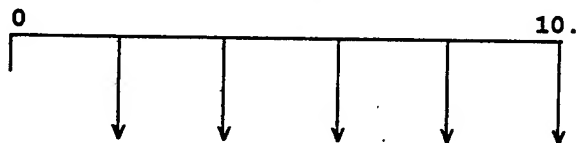
Annual Cost = \$2663.32

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

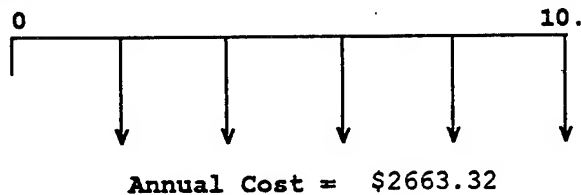
The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

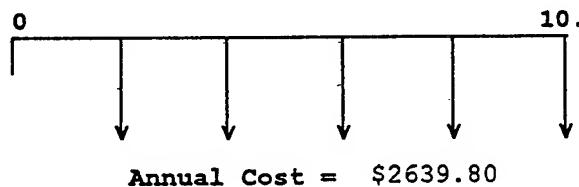


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

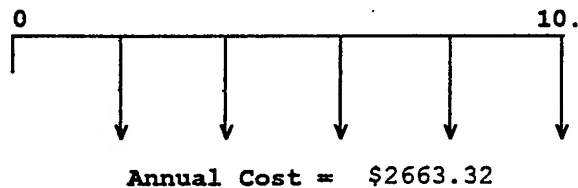
The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

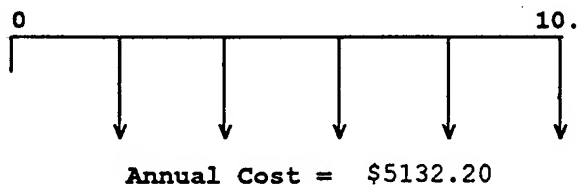


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

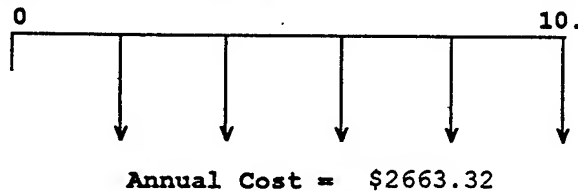
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

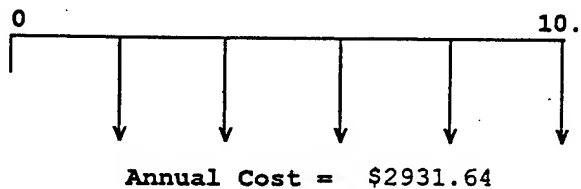


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

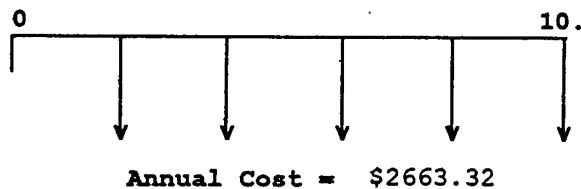
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

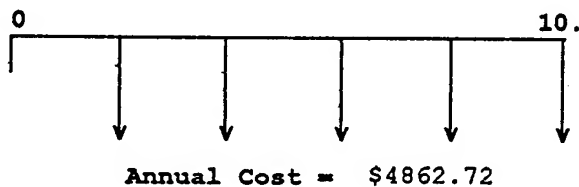
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

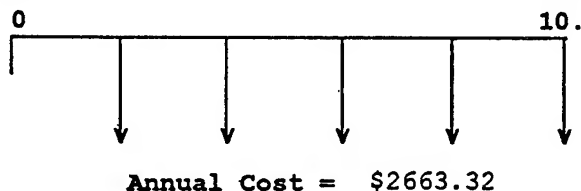
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

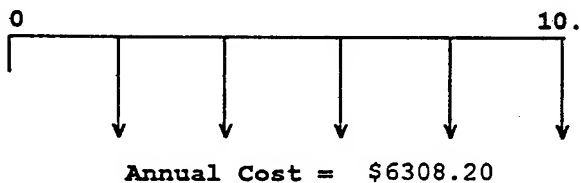
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

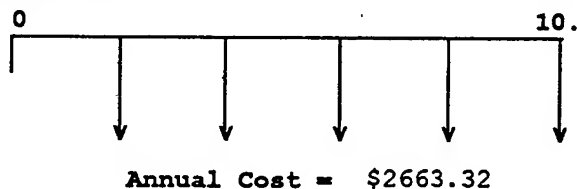
The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER

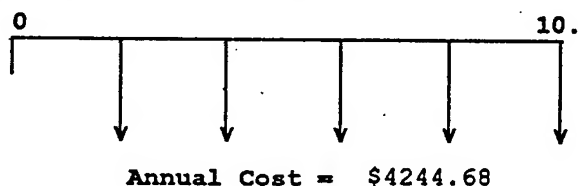


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

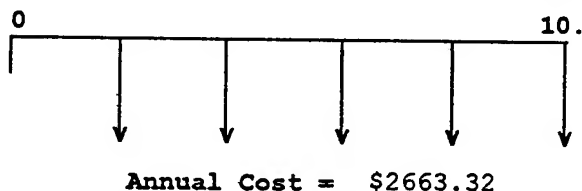
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

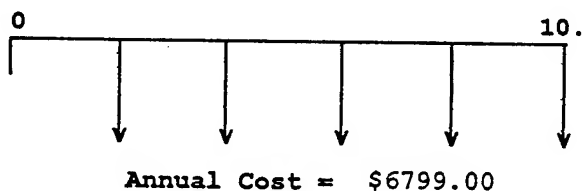
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

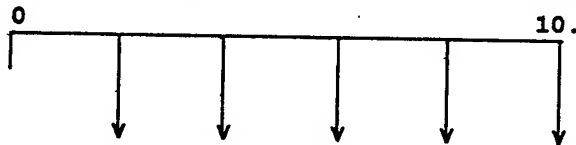
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: PIGMENTED POLYMER



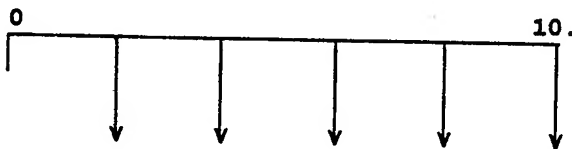
Annual Cost = \$2663.32

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Annual Cost = \$62074.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

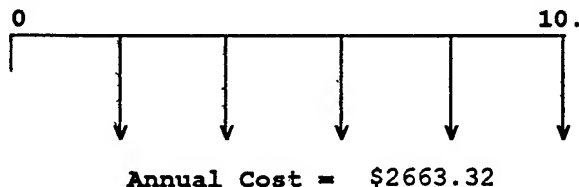
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

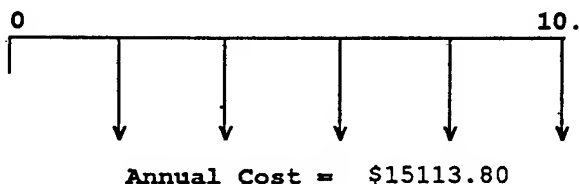
Status Quo Alternative: PIGMENTED POLYMER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2663.32	7.02360	\$18706.09

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Pigmented Polymer, is preferred because of its lower Net Present Value cost.

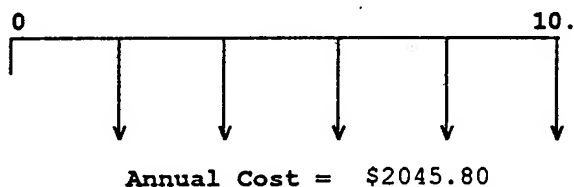
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

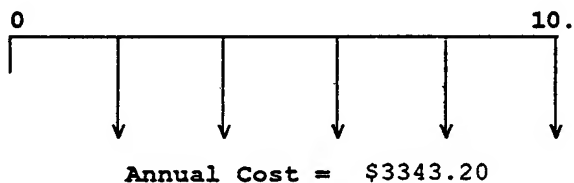
Status Quo Alternative: SO-SURE LACQUER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

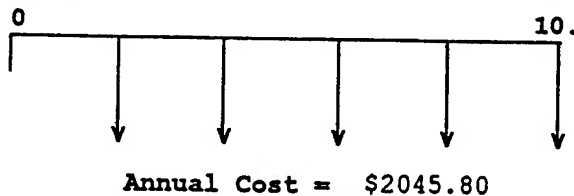
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

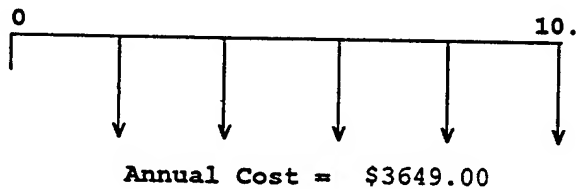


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

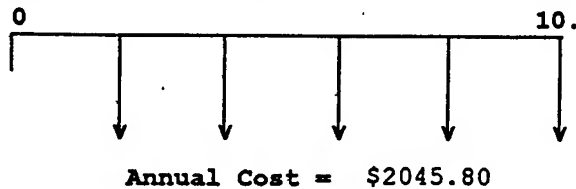
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

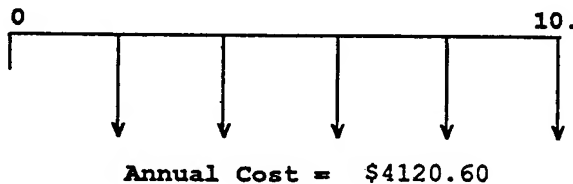


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

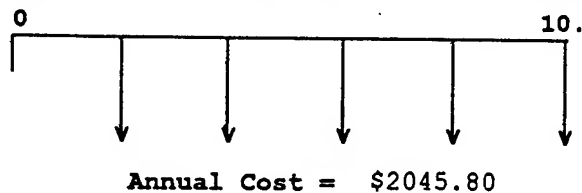
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

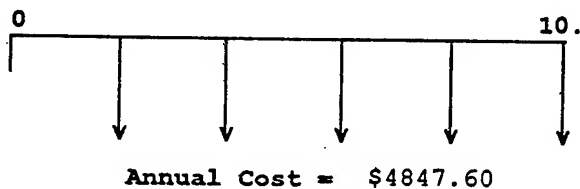


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

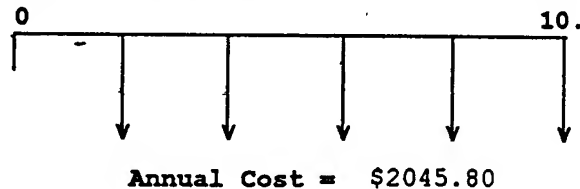
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

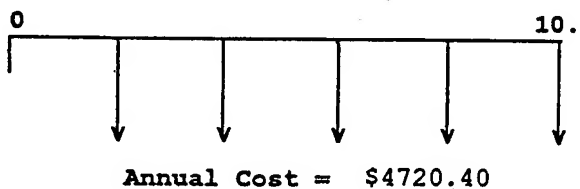
Status Quo Alternative: SO-SURE LACQUER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

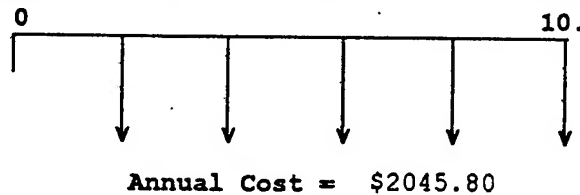
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

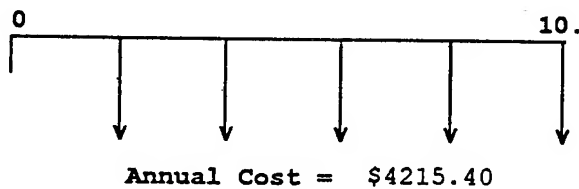


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

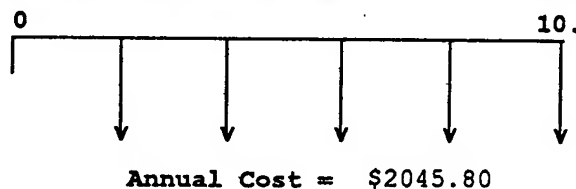
**Figure B-2
The Type II Net Present Value Economic Analysis**

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

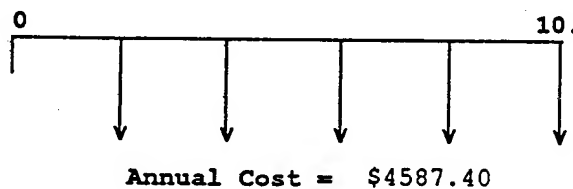


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

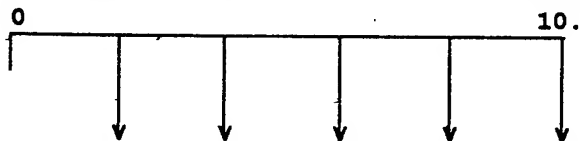
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



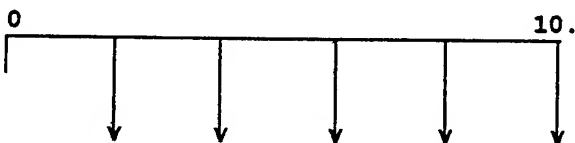
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

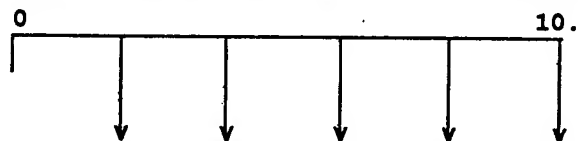
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



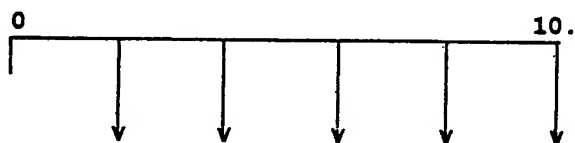
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Annual Cost = \$4353.28

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

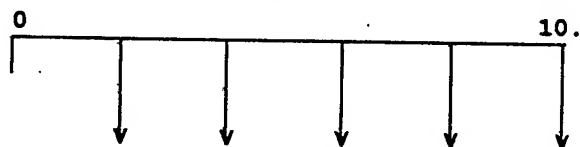
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

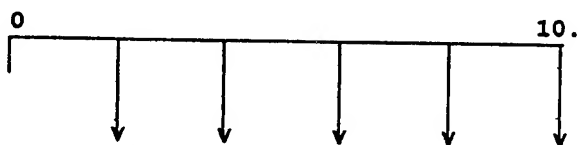


Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

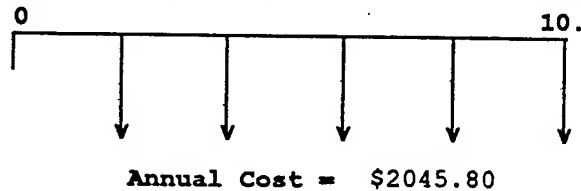
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

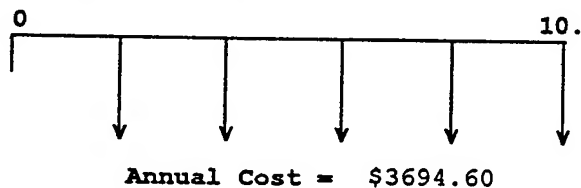
Status Quo Alternative: SO-SURE LACQUER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

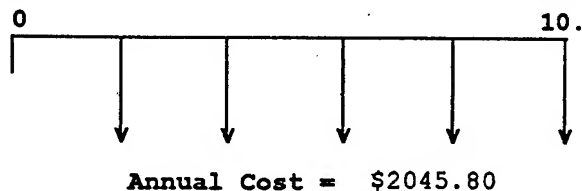
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

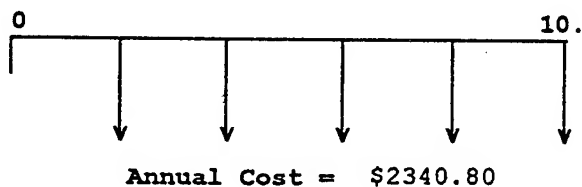


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

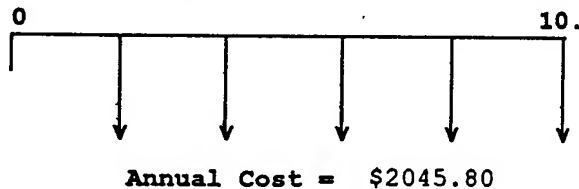
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

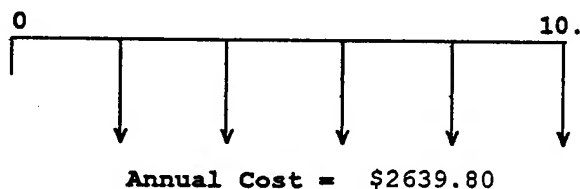
Status Quo Alternative: SO-SURE LACQUER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

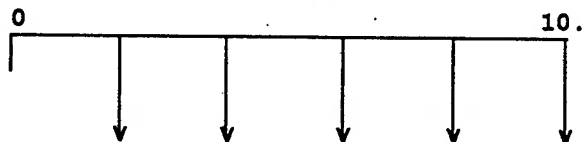
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



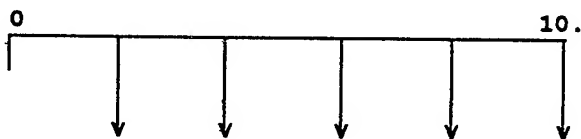
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Annual Cost = \$5132.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

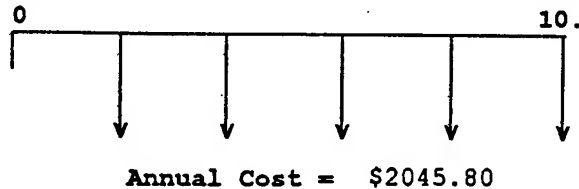
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

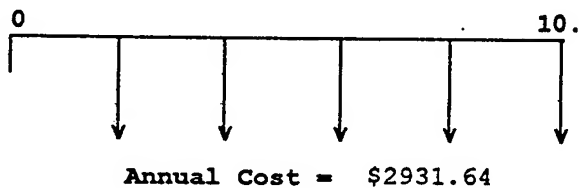
Status Quo Alternative: SO-SURE LACQUER



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

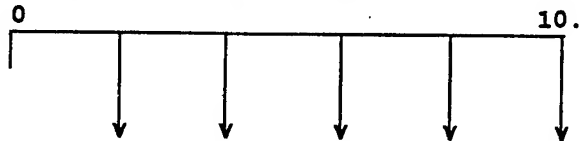
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



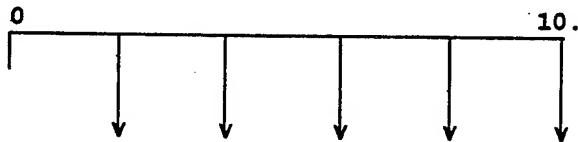
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

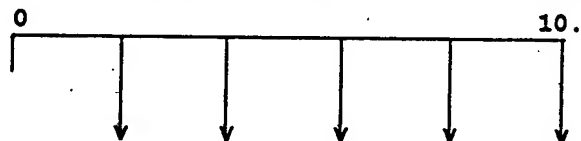
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



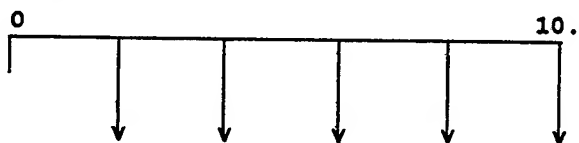
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

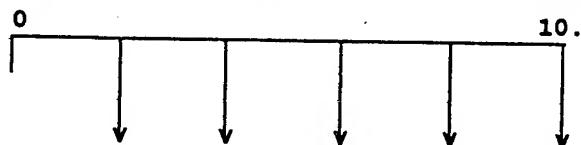
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER



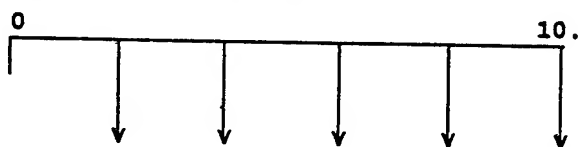
Annual Cost = \$2045.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

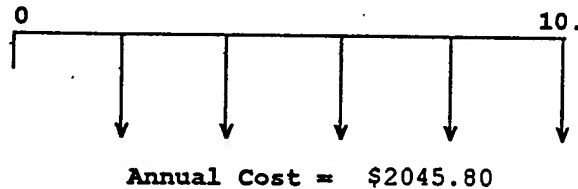
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

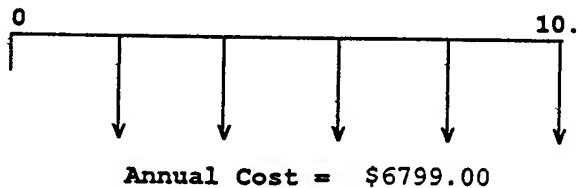


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

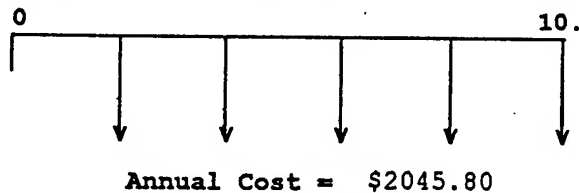
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

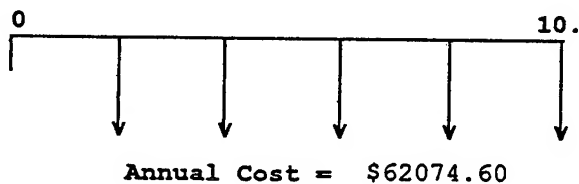


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

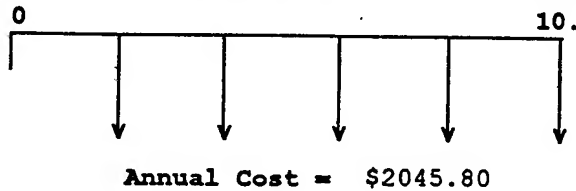
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE LACQUER

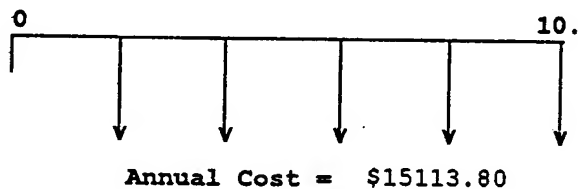


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2045.80	7.02360	\$14368.88

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

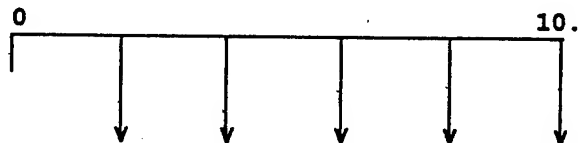
The status quo alternative, So-Sure Lacquer, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



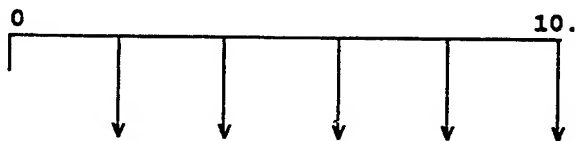
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Annual Cost = \$3343.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

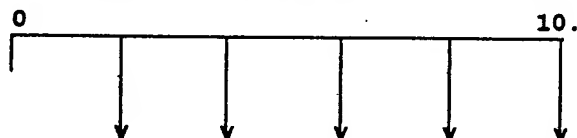
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



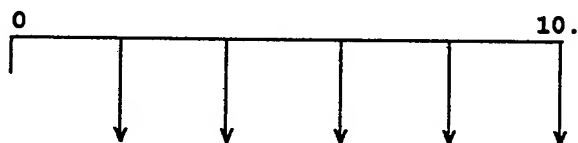
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Annual Cost = \$3649.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

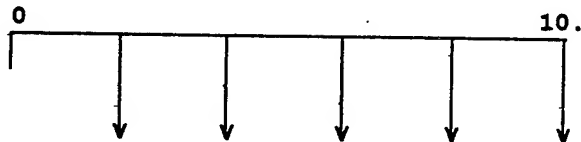
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



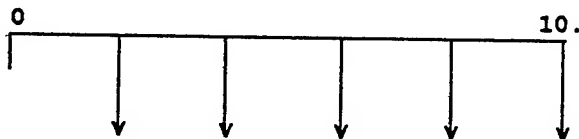
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Annual Cost = \$4120.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

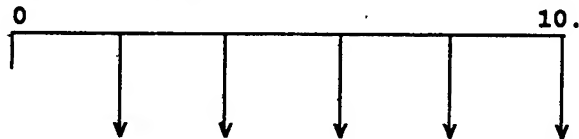
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



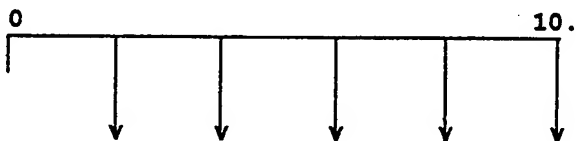
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Annual Cost = \$4847.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

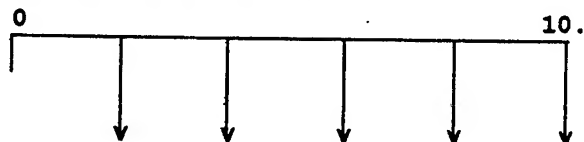
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



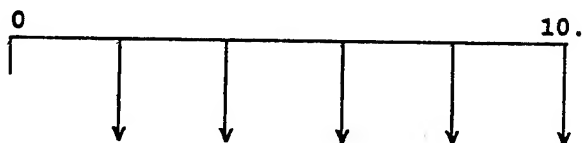
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Annual Cost = \$4720.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

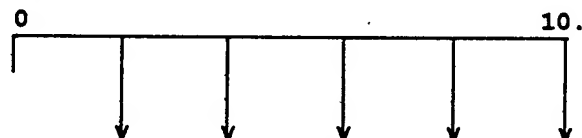
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



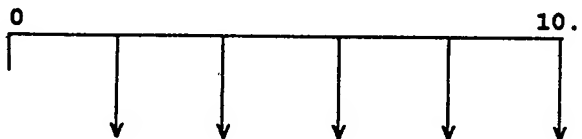
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Annual Cost = \$4215.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

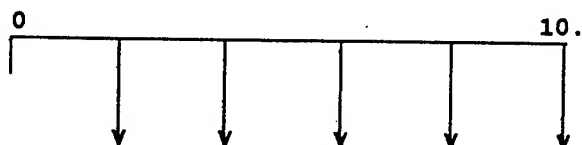
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



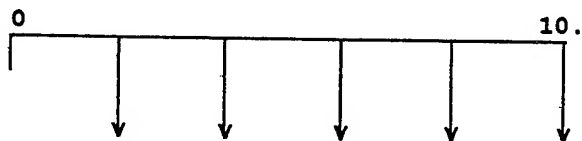
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Annual Cost = \$4587.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

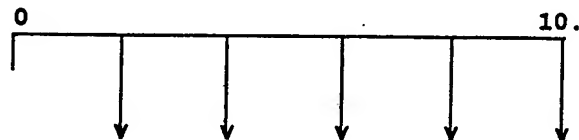
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



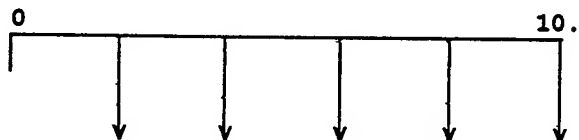
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

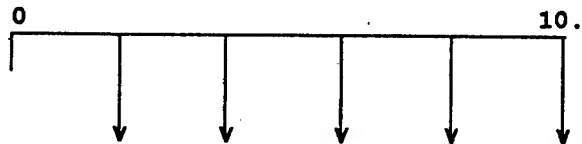
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



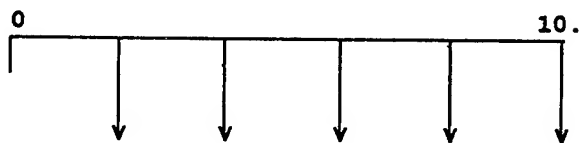
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Annual Cost = \$4353.28

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

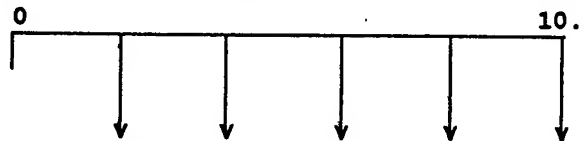
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



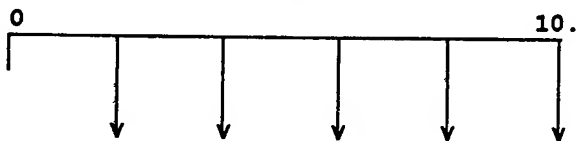
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

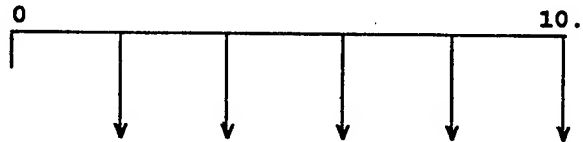
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



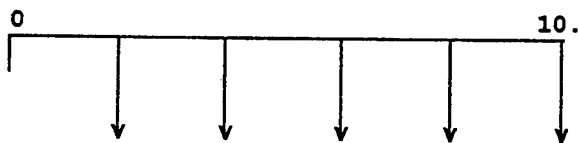
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

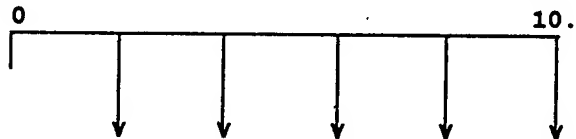
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



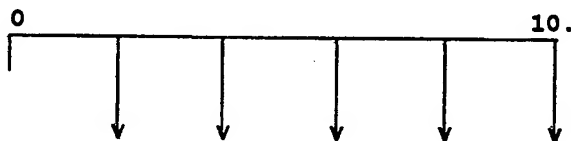
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

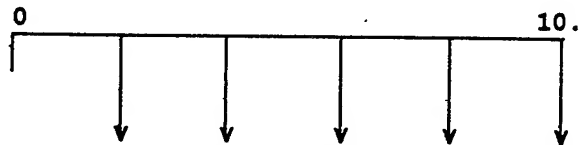
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



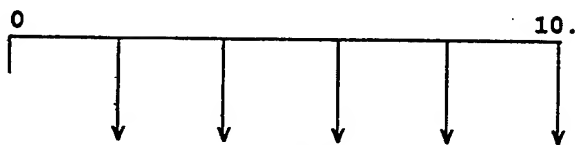
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

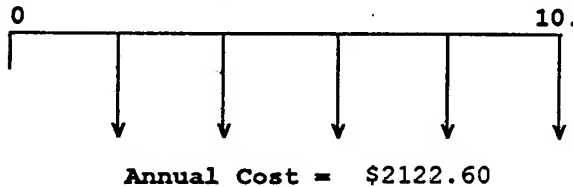
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P

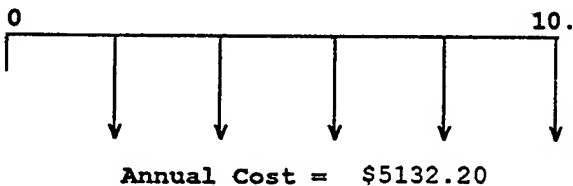


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

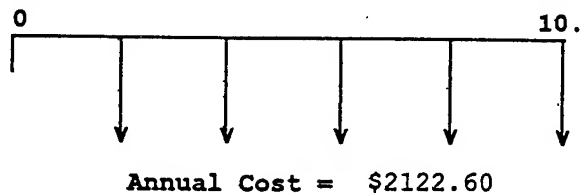
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

**Figure B-2
The Type II Net Present Value Economic Analysis**

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P

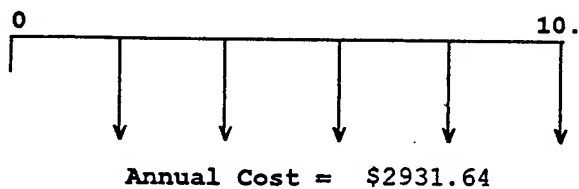


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

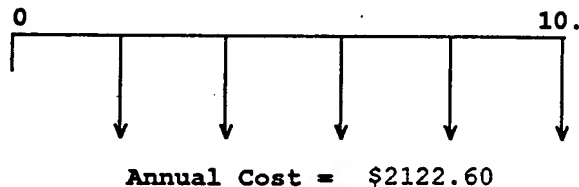
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P

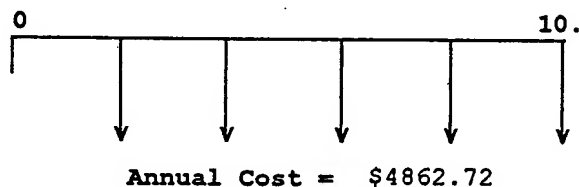


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

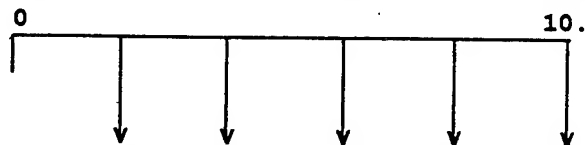
The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P

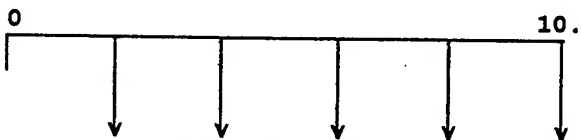


Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

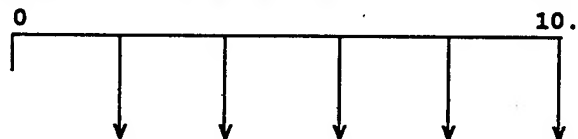
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



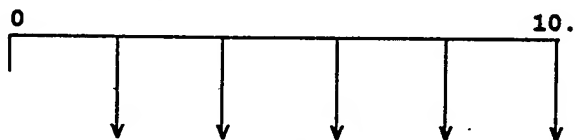
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

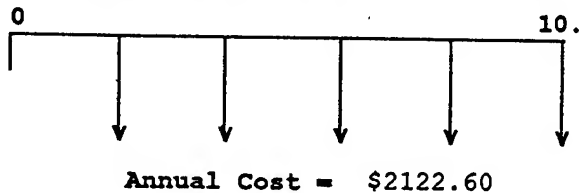
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P

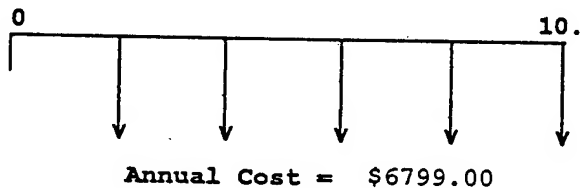


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

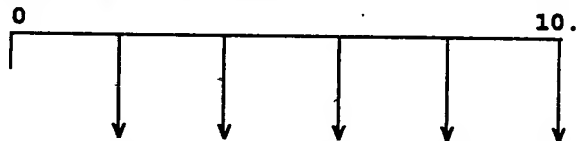
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



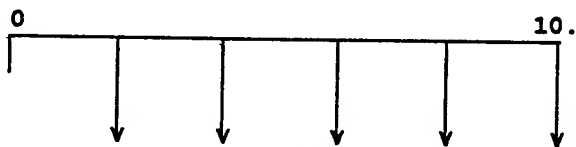
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Annual Cost = \$62074.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

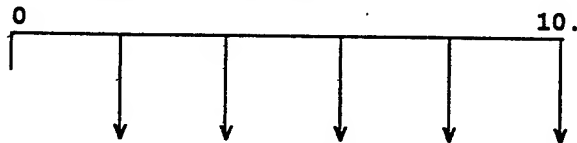
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE BLUE 35109 (54-350) P



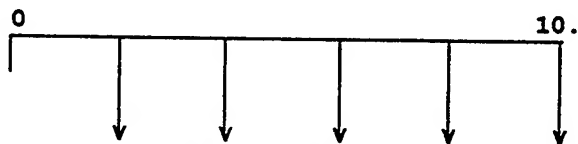
Annual Cost = \$2122.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Annual Cost = \$15113.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2122.60	7.02360	\$14908.29

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, So-Sure Blue 35109 (54-350) P, is preferred because of its lower Net Present Value cost.

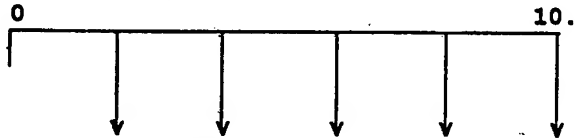
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



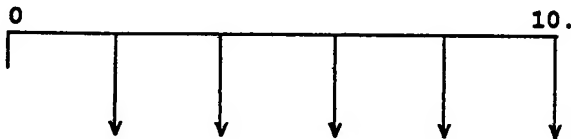
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Annual Cost = \$3343.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

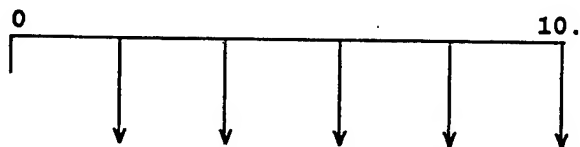
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230) G ENAMEL



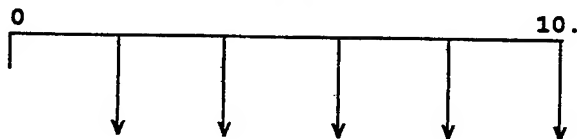
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Annual Cost = \$3649.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

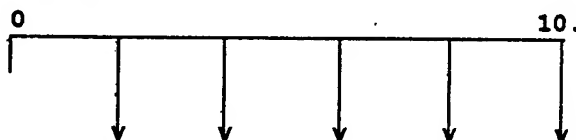
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



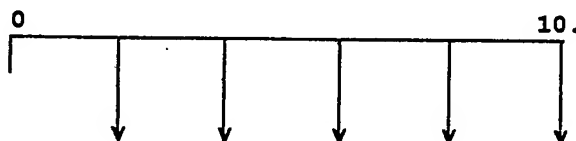
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Annual Cost = \$4120.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

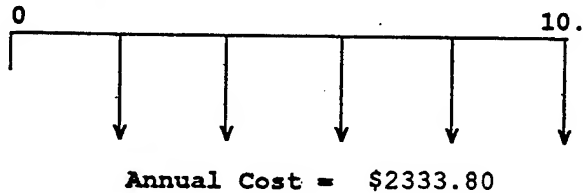
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL

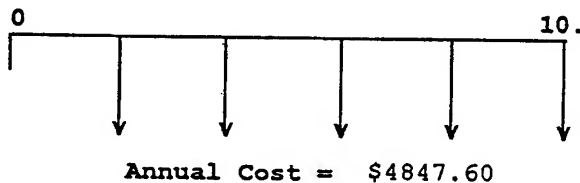


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

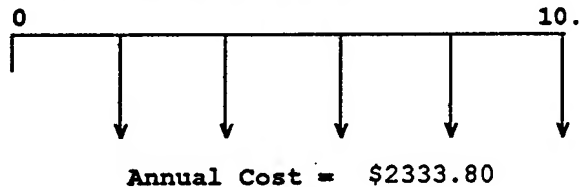
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL

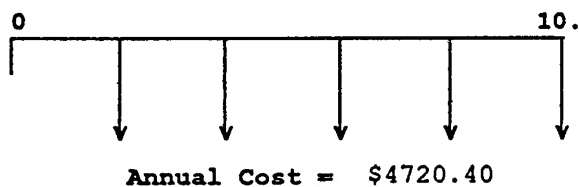


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

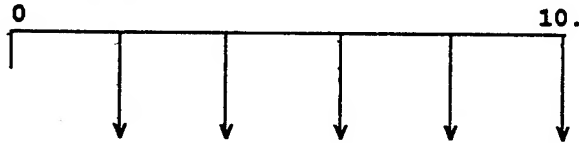
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



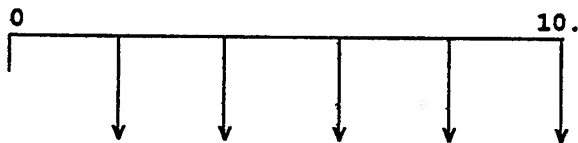
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Annual Cost = \$4215.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

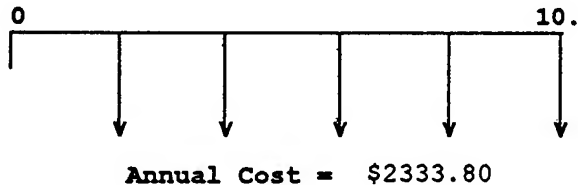
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL

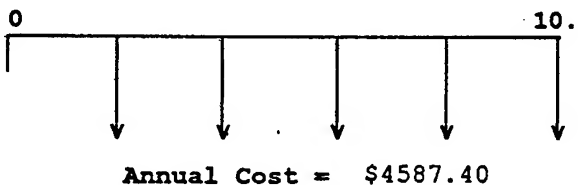


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

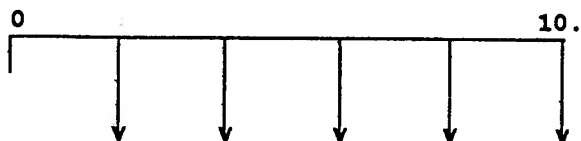
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



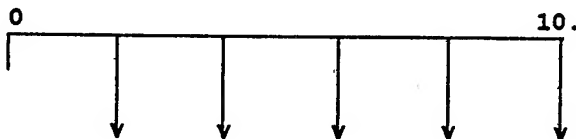
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

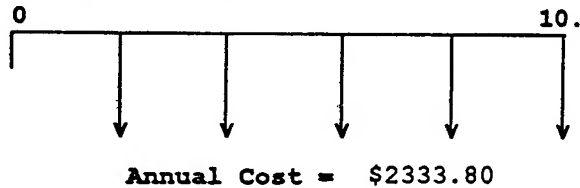
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL

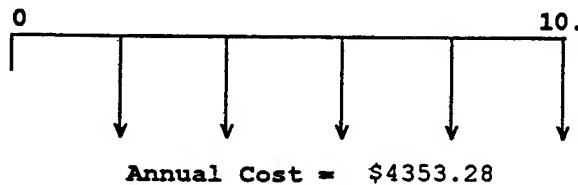


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

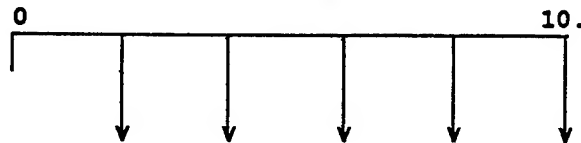
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



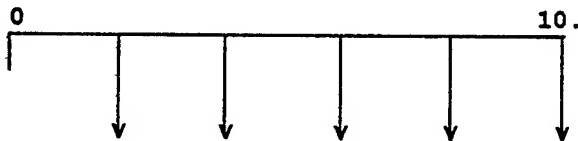
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

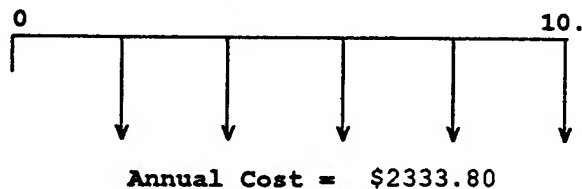
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

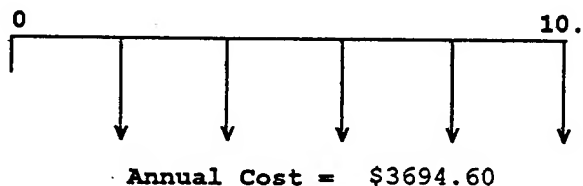
Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

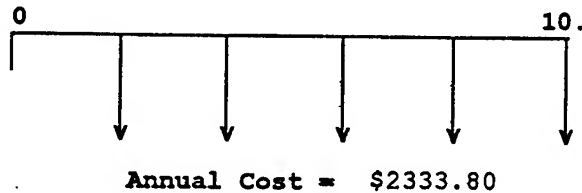
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL

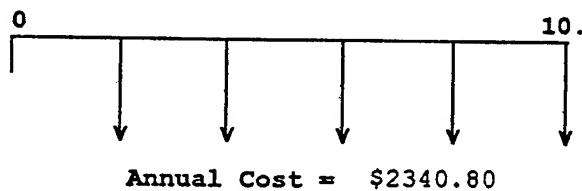


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

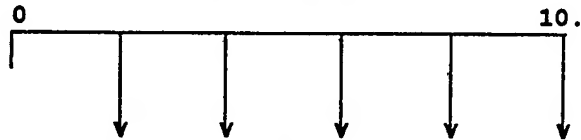
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



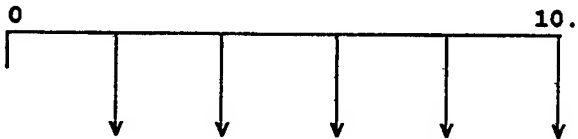
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

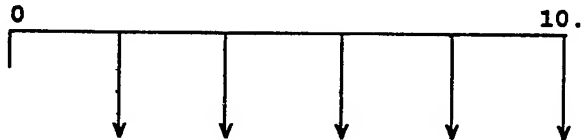
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

**Figure B-2
The Type II Net Present Value Economic Analysis**

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



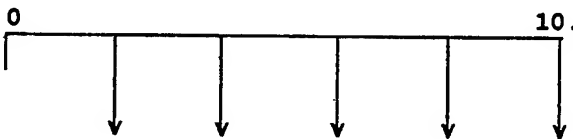
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Annual Cost = \$5132.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

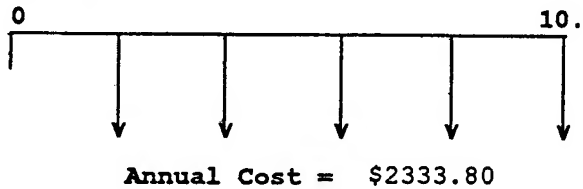
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

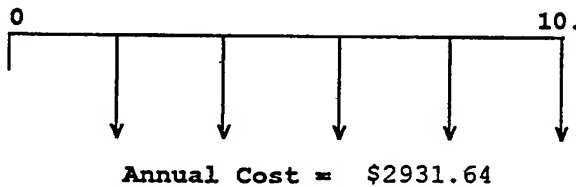
Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

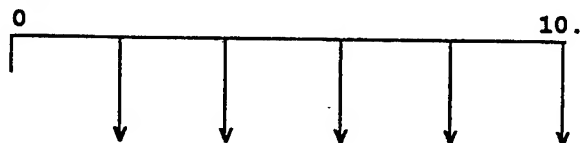
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



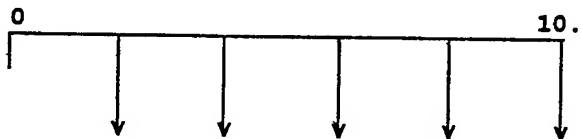
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

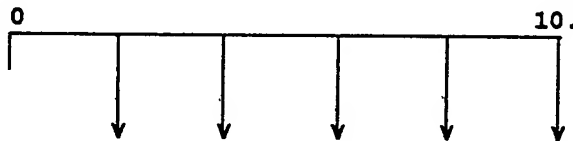
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



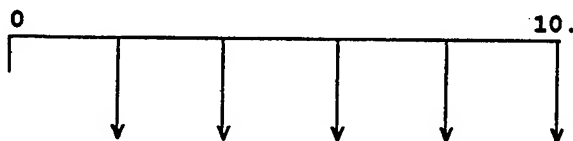
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

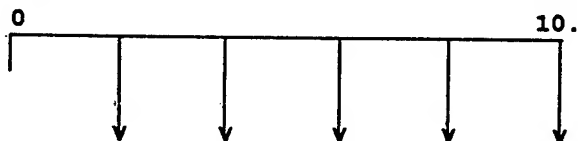
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



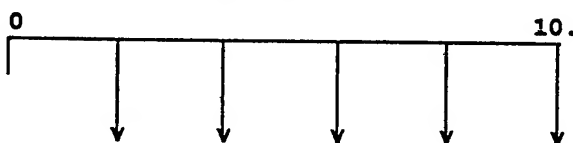
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

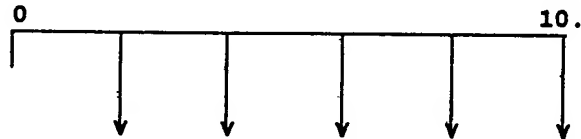
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



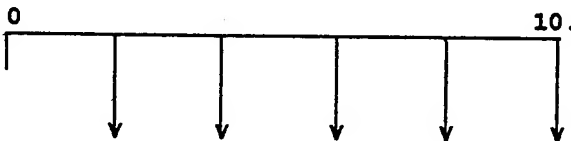
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Annual Cost = \$6799.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

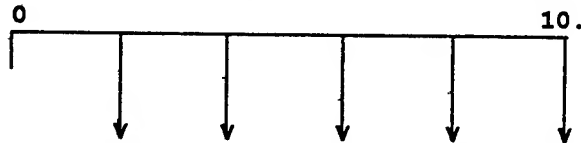
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



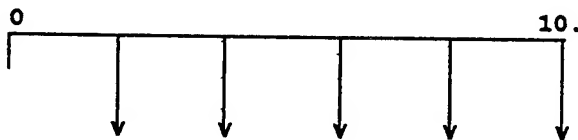
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Annual Cost = \$62074.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

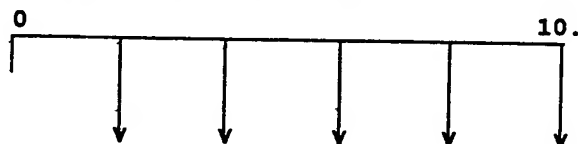
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

Status Quo Alternative: SO-SURE YELLOW 23530 (114-230)G ENAMEL



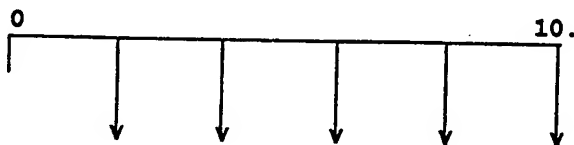
Annual Cost = \$2333.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Annual Cost = \$15113.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2333.80	7.02360	\$16391.68

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

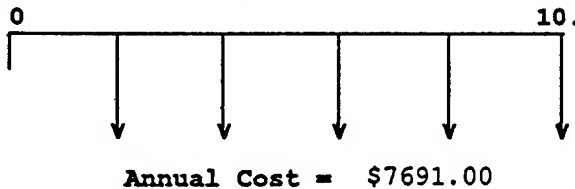
The status quo alternative, So-Sure Yellow 23538 (114-230) G, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS

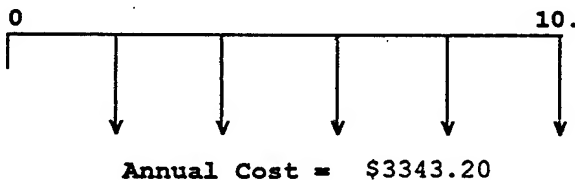


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

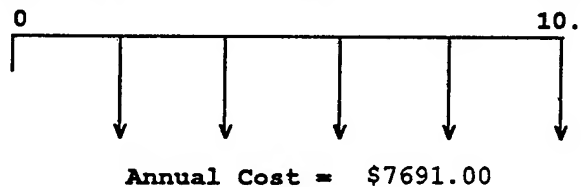
The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS

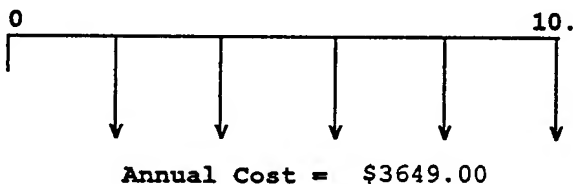


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

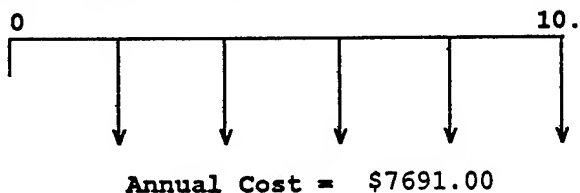
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

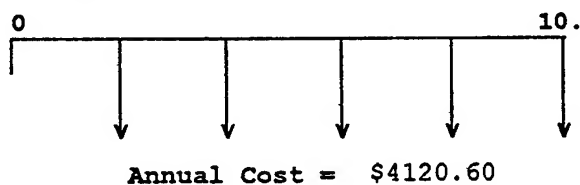
Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

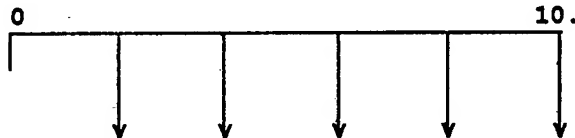
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS

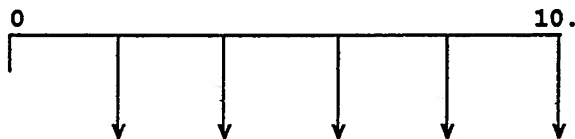


Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Annual Cost = \$4847.60

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

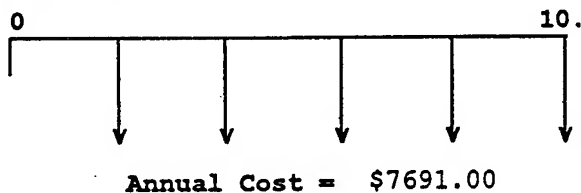
The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

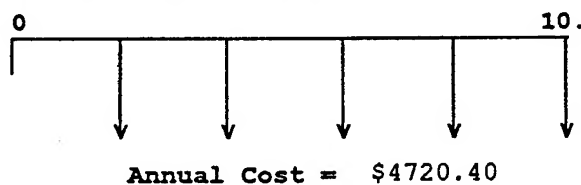
Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

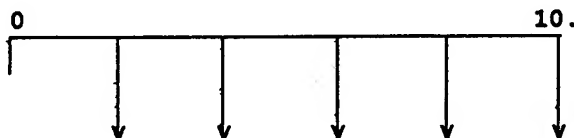
The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

**Figure B-2
The Type II Net Present Value Economic Analysis**

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



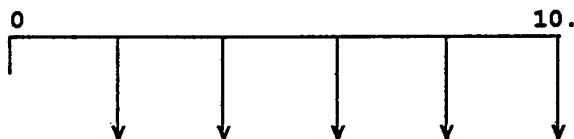
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Annual Cost = \$4215.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss VOC-Compliant, is preferred because of its lower Net Present Value cost.

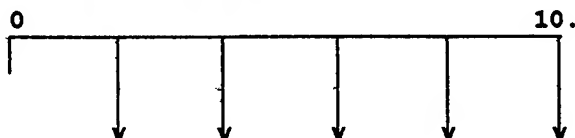
**Figure B-2
The Type II Net Present Value Economic Analysis**

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



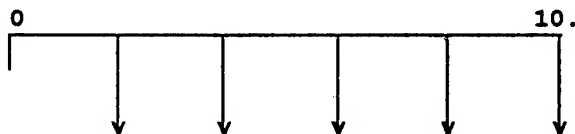
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Annual Cost = \$4587.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

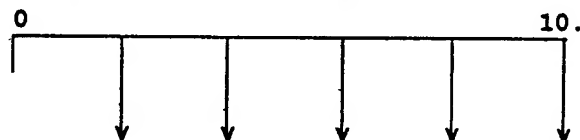
The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



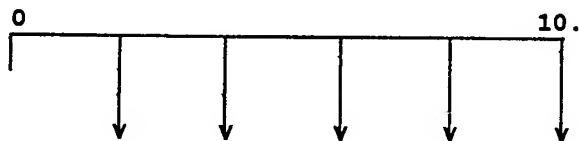
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

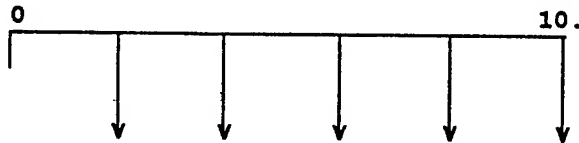
The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



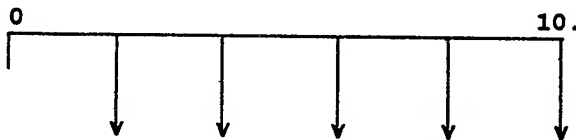
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Annual Cost = \$4353.28

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

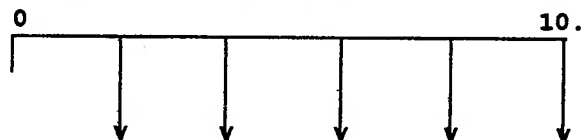
The proposed alternative, Polyurethane Coating Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



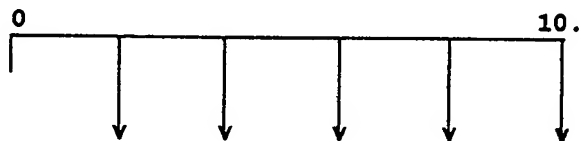
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Annual Cost = \$3280.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

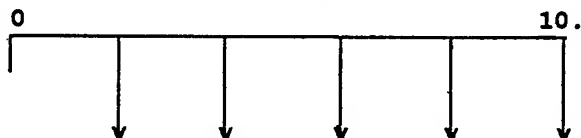
The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



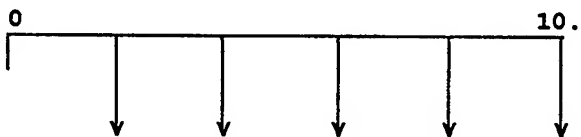
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

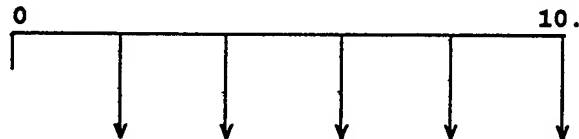
The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



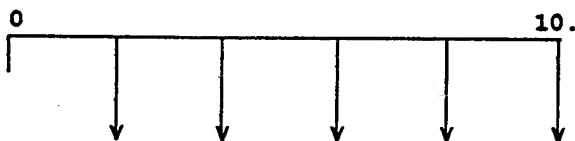
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

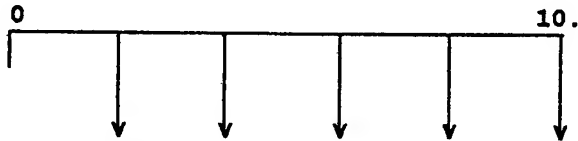
The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



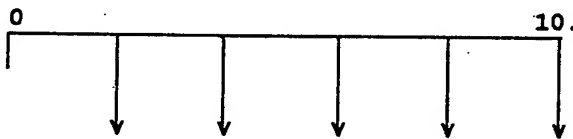
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

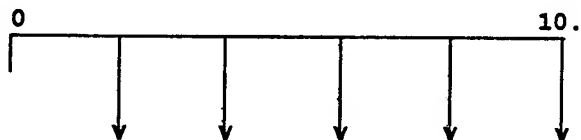
The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



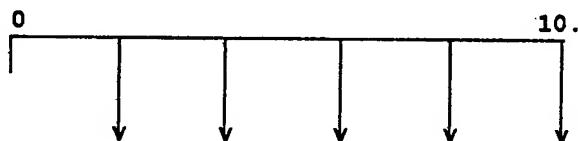
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Annual Cost = \$5132.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

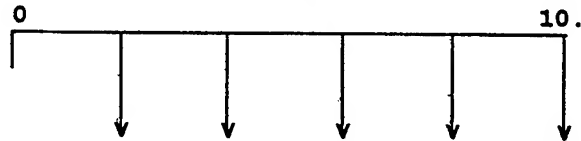
The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



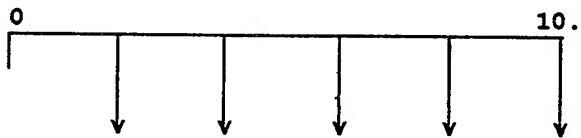
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Annual Cost = \$2931.64

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost.

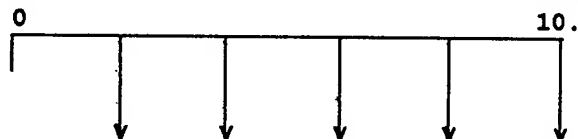
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



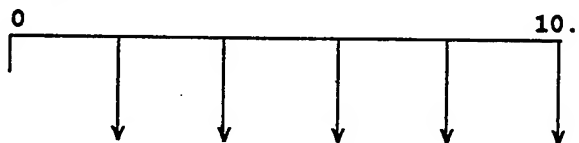
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

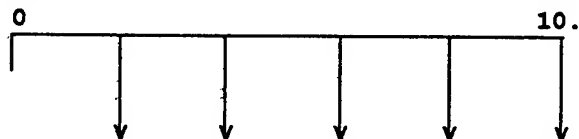
The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



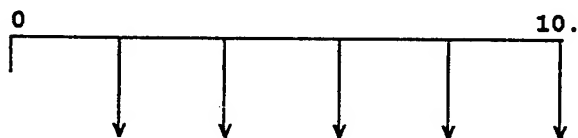
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The proposed alternative, Eco-Sure Yellow 23538 (694-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

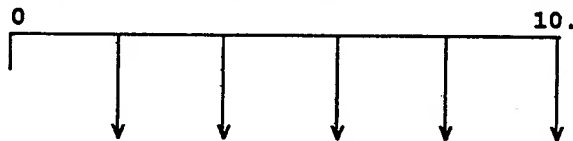
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



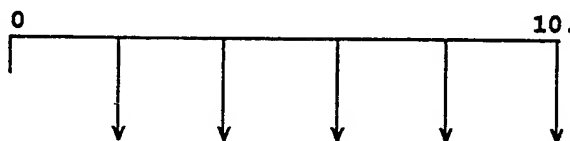
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

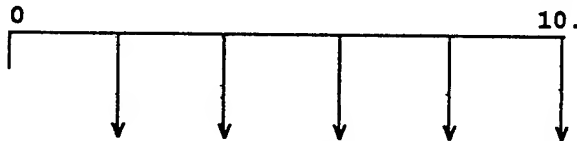
The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS



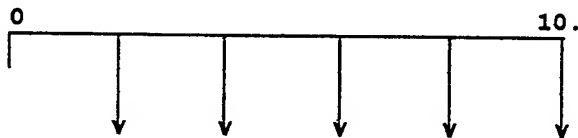
Annual Cost = \$7691.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Annual Cost = \$6799.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

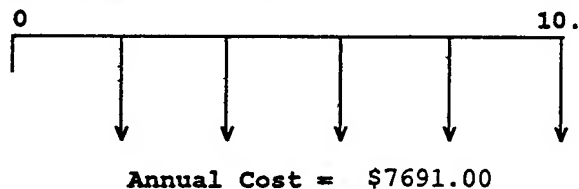
The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS

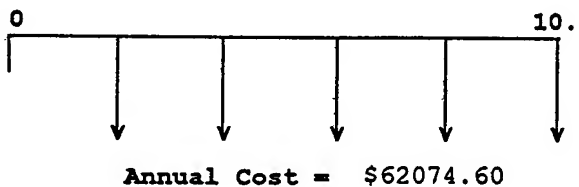


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, HARD HAT Fluorescent Topcoats, is preferred because of its lower Net Present Value cost.

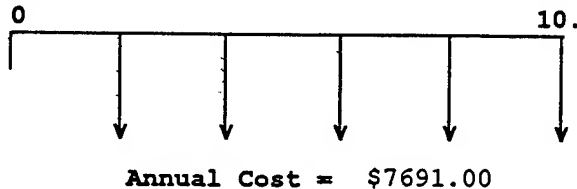
Figure B-2
The Type II Net Present Value Economic Analysis

05/08/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: HARD HAT FLOURESCENT TOPCOATS

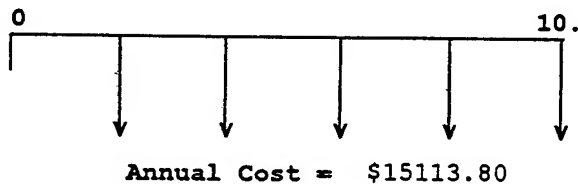


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$7691.00	7.02360	\$54018.51

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

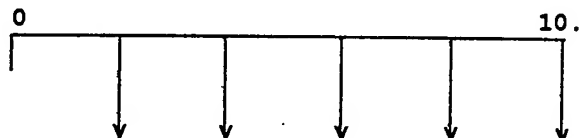
The status quo alternative, HARD HAT Fluorescent Topcoats, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



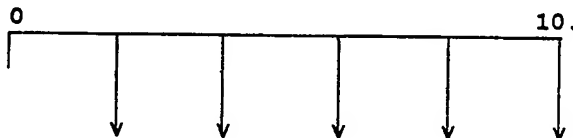
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Annual Cost = \$3343.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

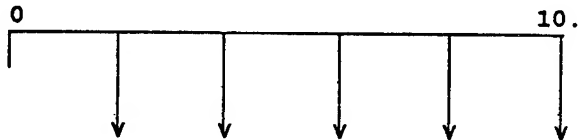
The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



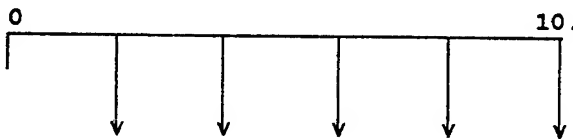
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Annual Cost = \$3649.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

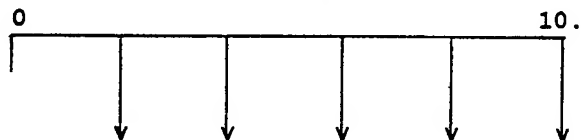
The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



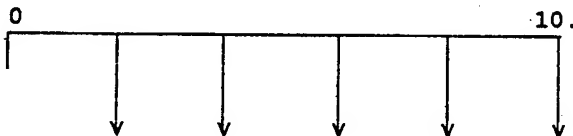
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Annual Cost = \$4120.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

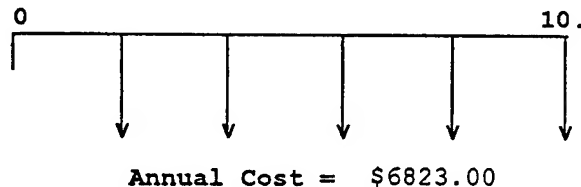
The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

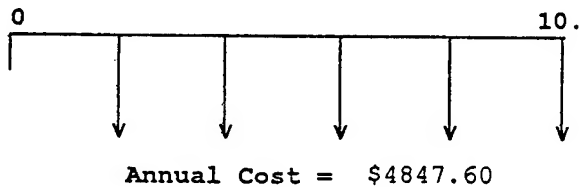
Status Quo Alternative: POLYURETHANE CURING SOLUTION



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

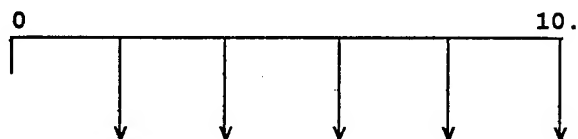
The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



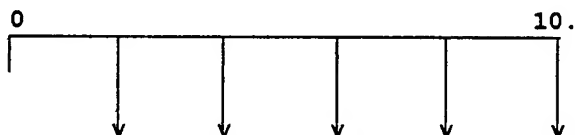
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Annual Cost = \$4720.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

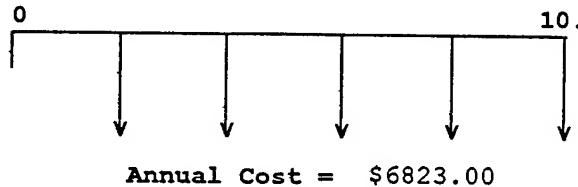
The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

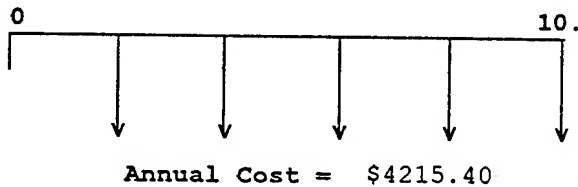
Status Quo Alternative: POLYURETHANE CURING SOLUTION



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

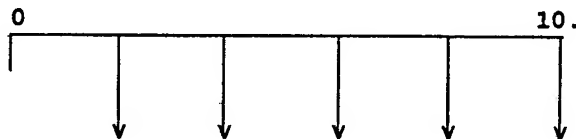
The proposed alternative, Eco-Sure Blue 25042 Semigloss VOC-Compliant, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



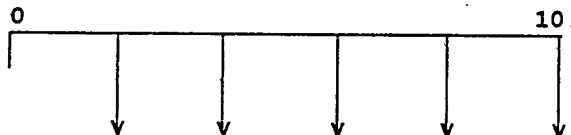
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Annual Cost = \$4587.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

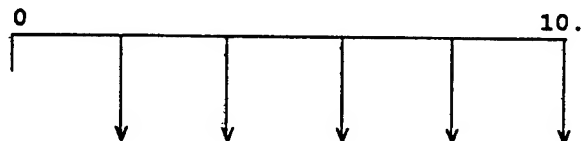
The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



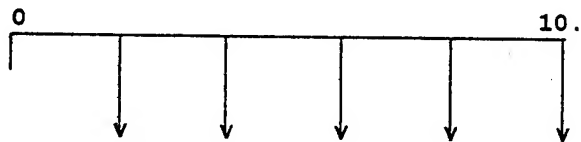
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

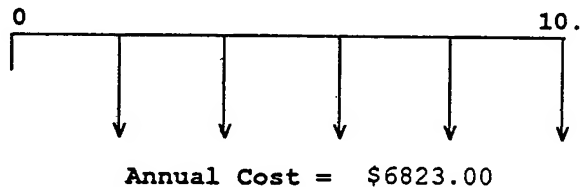
The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

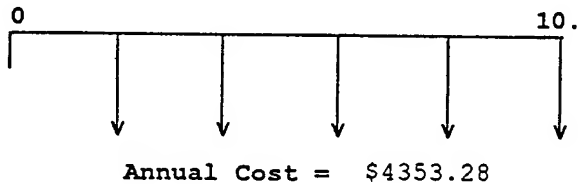
Status Quo Alternative: POLYURETHANE CURING SOLUTION



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

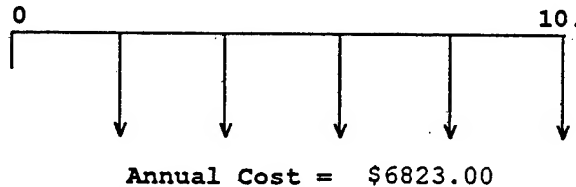
The proposed alternative, Polyurethane Coating Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION

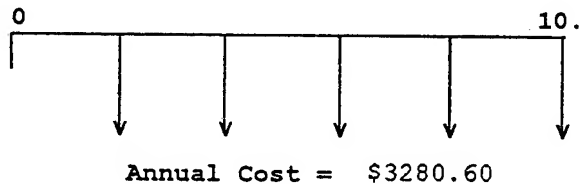


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

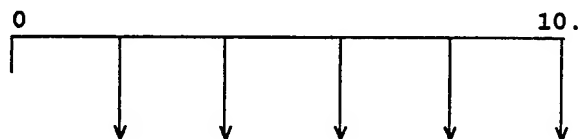
The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



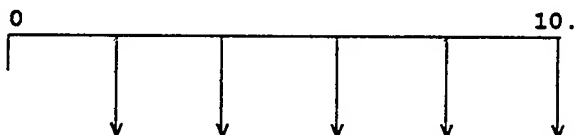
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

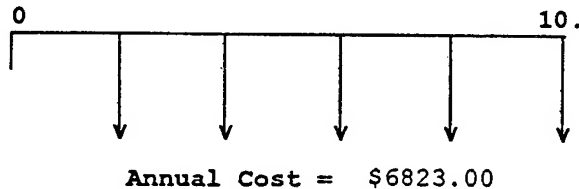
The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION

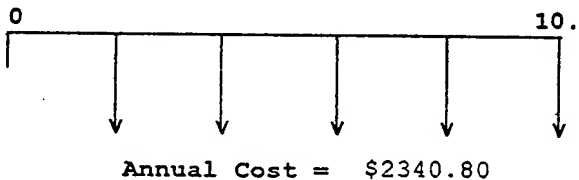


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

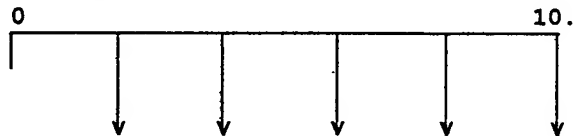
The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



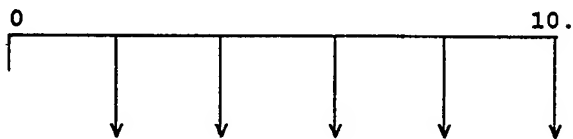
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

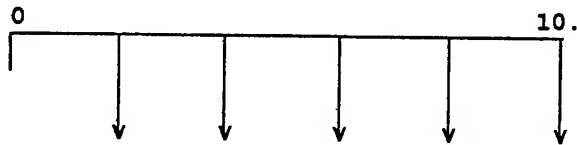
The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



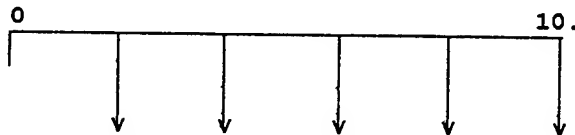
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Annual Cost = \$5132.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

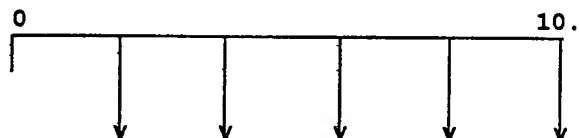
The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



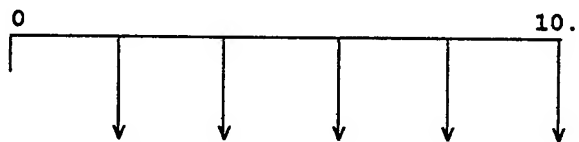
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Annual Cost = \$2931.64

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

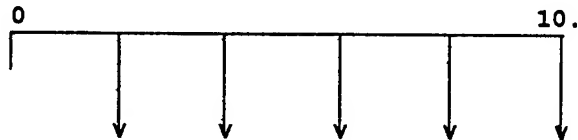
The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



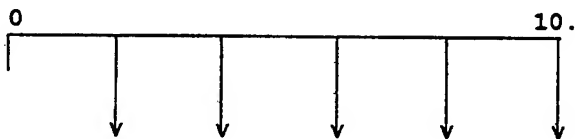
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

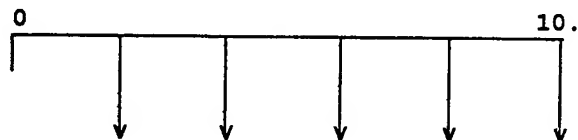
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



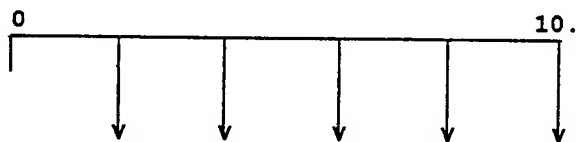
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

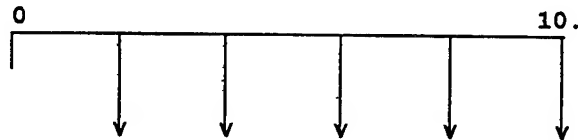
The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



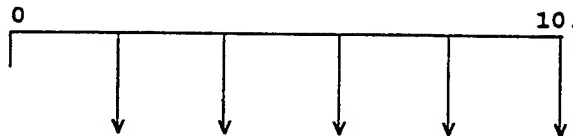
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

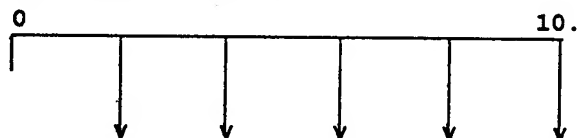
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



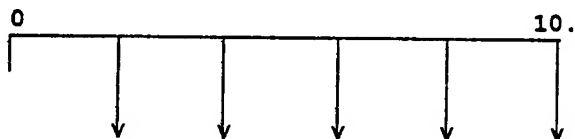
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Annual Cost = \$6799.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

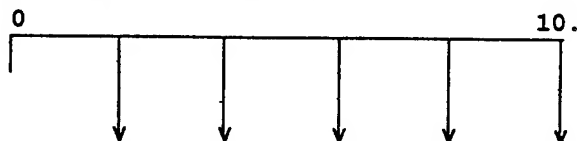
The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: POLYURETHANE CURING SOLUTION



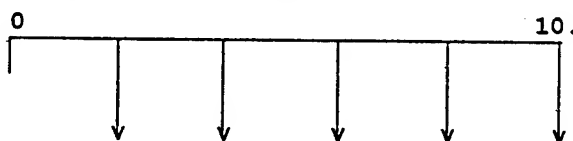
Annual Cost = \$6823.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Annual Cost = \$62074.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Polyurethane Curing Solution, is preferred because of its lower Net Present Value cost.

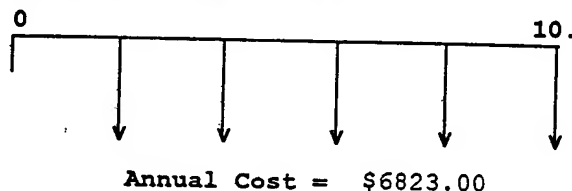
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

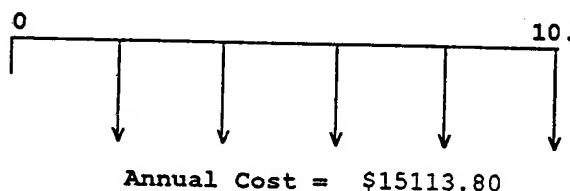
Status Quo Alternative: POLYURETHANE CURING SOLUTION



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6823.00	7.02360	\$47922.02

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Polyurethane Curing Solution, is preferred because of its lower Net Present Value cost.

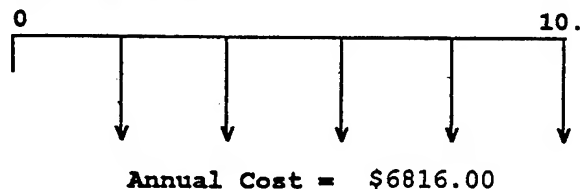
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

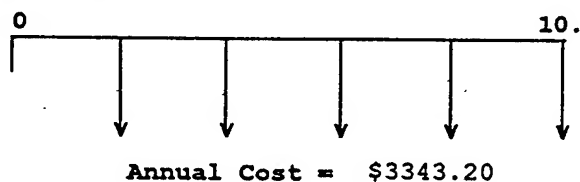


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

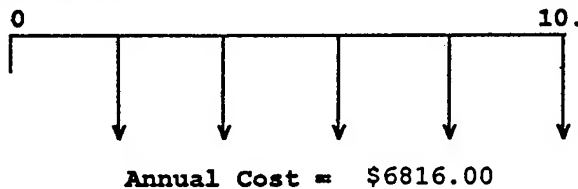
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

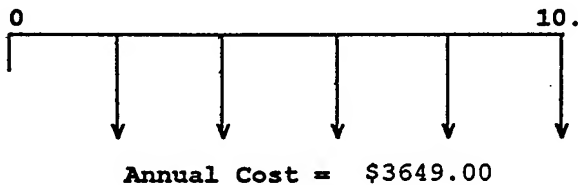
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

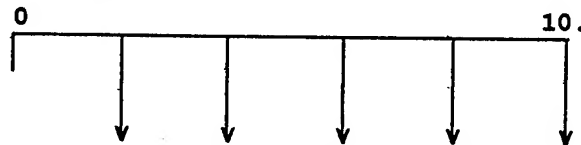
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



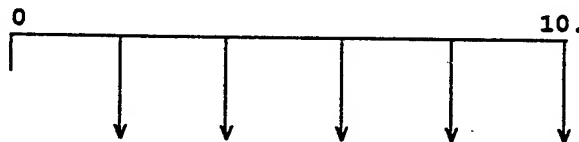
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Annual Cost = \$4120.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

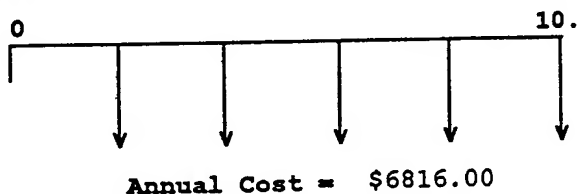
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

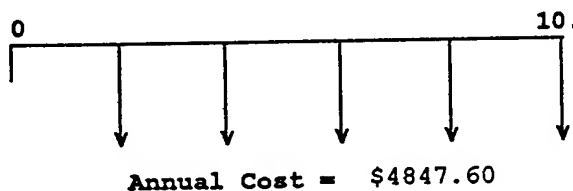
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

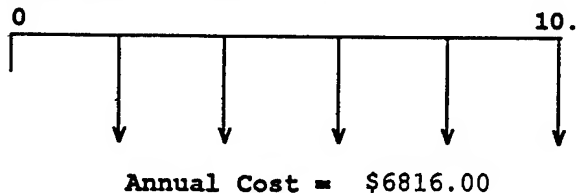
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

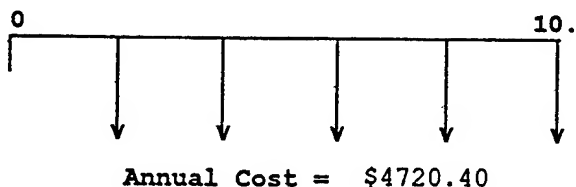


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

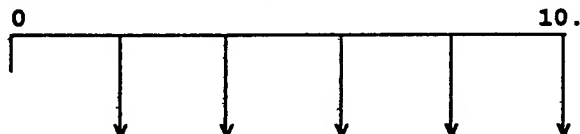
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



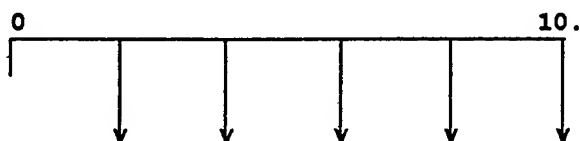
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Annual Cost = \$4215.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss VOC-Compliant, is preferred because of its lower Net Present Value cost.

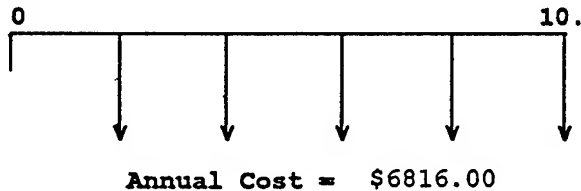
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

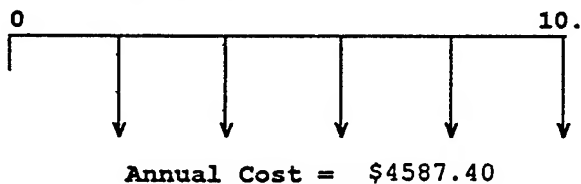


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

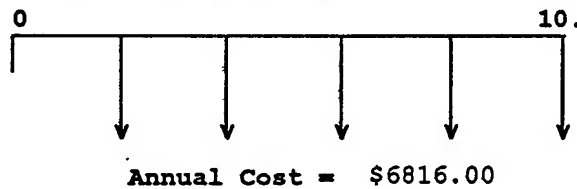
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

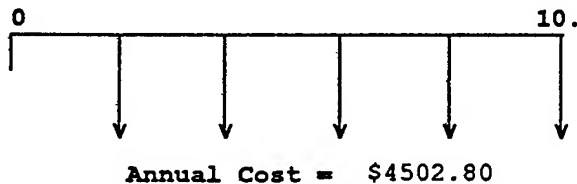


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

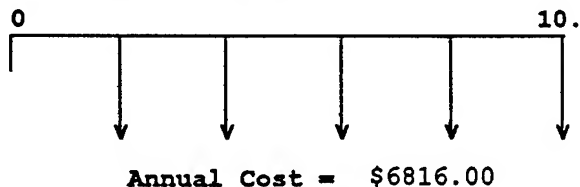
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

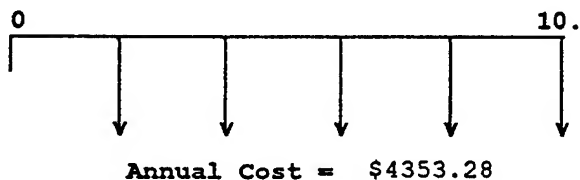
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The proposed alternative, Polyurethane Coatin Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

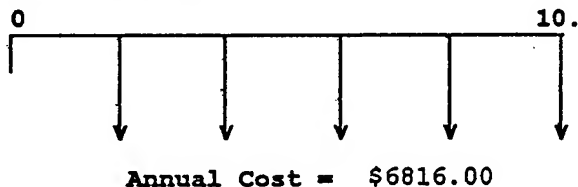
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

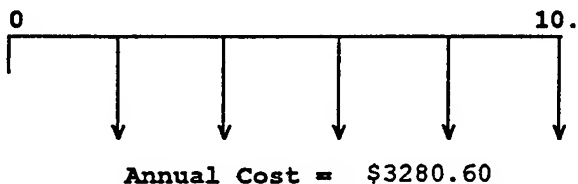
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

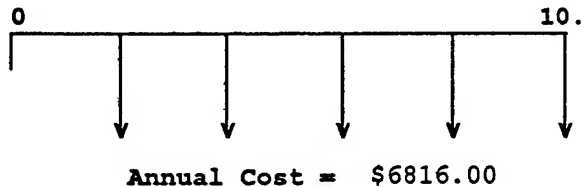
The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

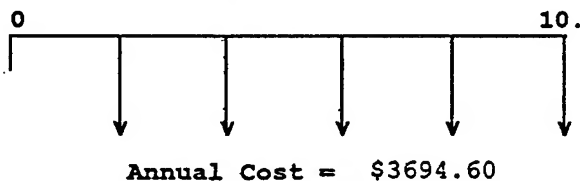
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

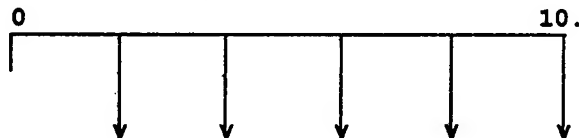
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

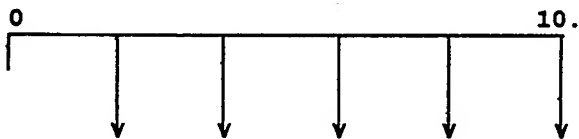


Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

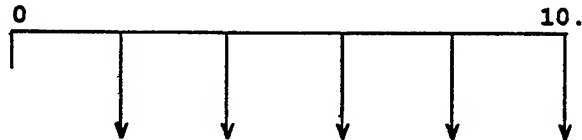
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



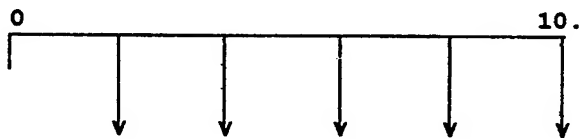
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

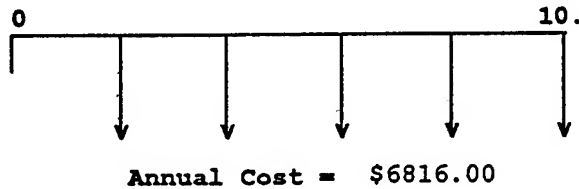
The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

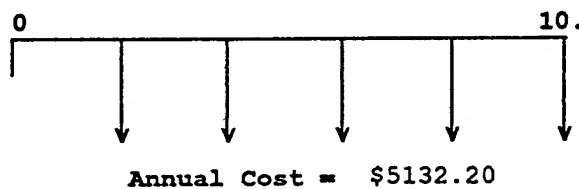
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

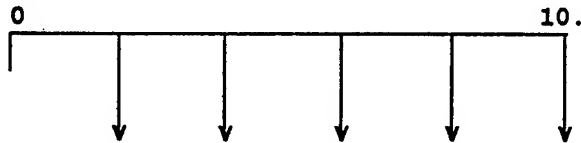
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



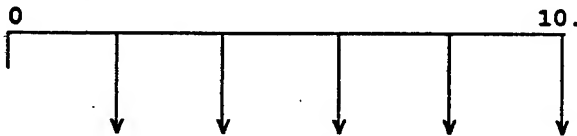
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Annual Cost = \$2931.64

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost.

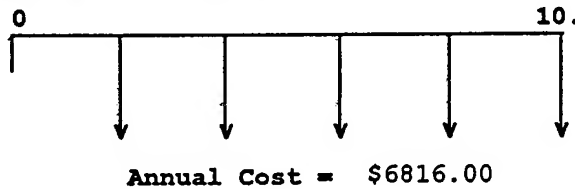
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL

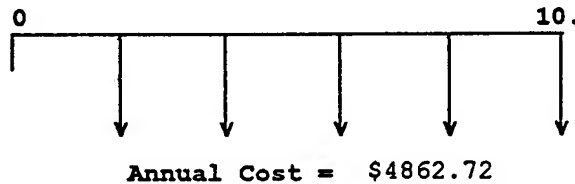


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

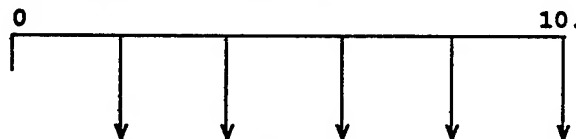
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



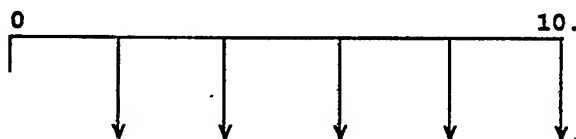
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Annual Cost = \$6308.20

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

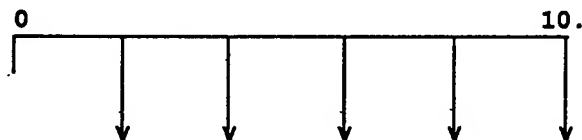
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



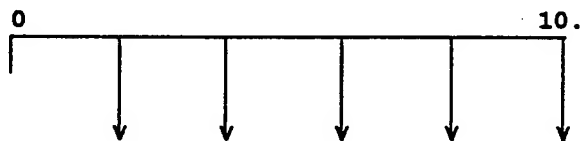
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

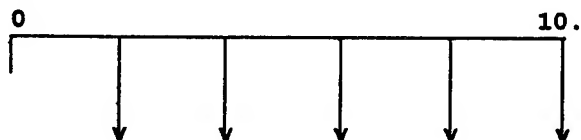
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



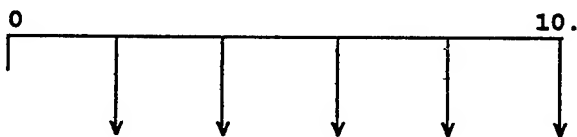
Annual Cost = \$6816.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Annual Cost = \$6799.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6816.00	7.02360	\$47872.86

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost.

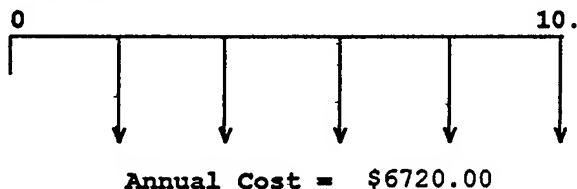
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

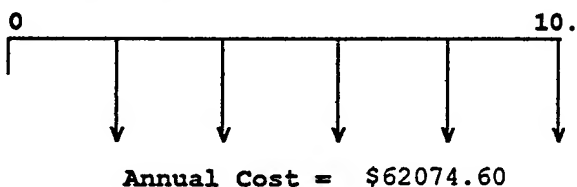
Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6720.00	7.02360	\$47198.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

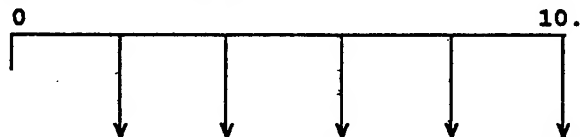
The status quo alternative, TT-E-529F TY 1 #20117 Brown Air Dry Enamel, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL



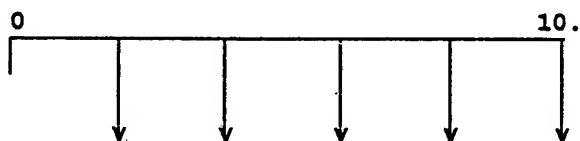
Annual Cost = \$6720.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Annual Cost = \$15113.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6720.00	7.02360	\$47198.59

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, TT-E-529F TY 1 #20117 Brown Air Dry Enamel, is preferred because of its lower Net Present Value cost.

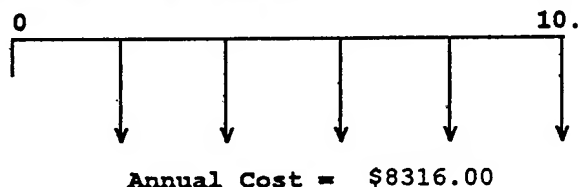
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B

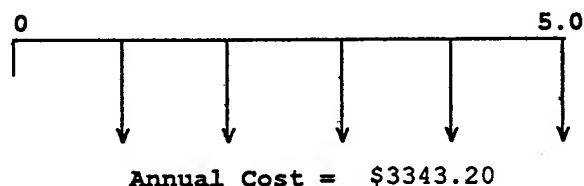


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 5.0

Interest Rate = 6.65 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	.7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 5.0	Product and PPE	\$3343.20	4.13905	\$13837.67

The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost,

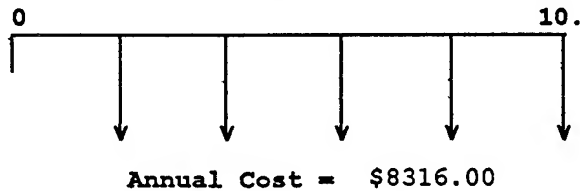
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

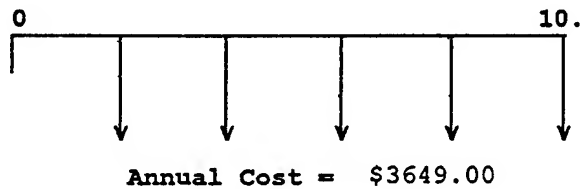
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

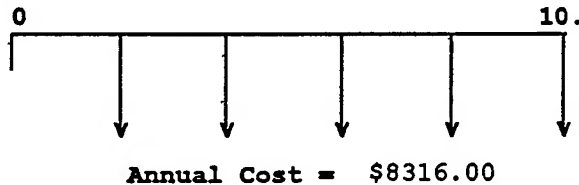
The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost,

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

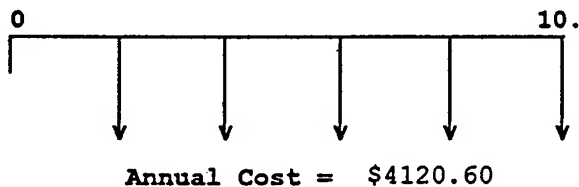
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

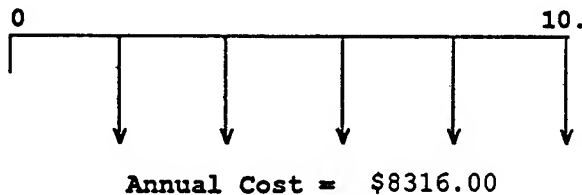
The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost,

**Figure B-2
The Type II Net Present Value Economic Analysis**

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B

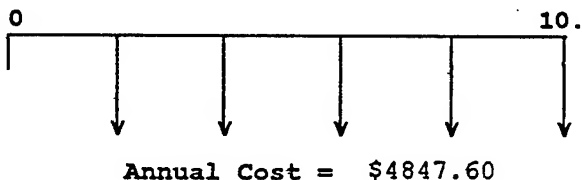


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost,

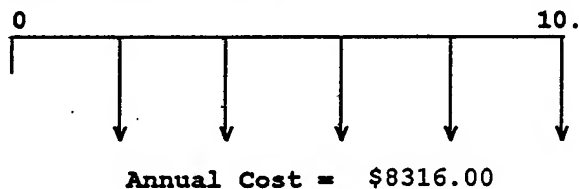
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B

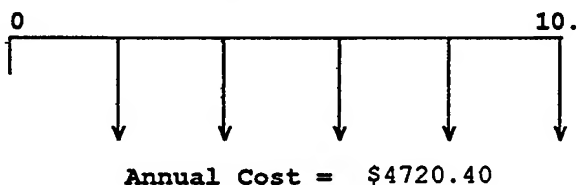


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

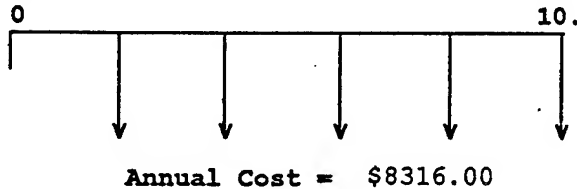
The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost,

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B

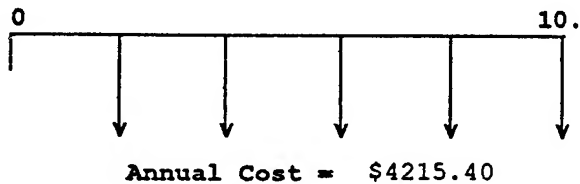


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss Low VOC-Compliant, is preferred because of its lower Net Present Value cost,

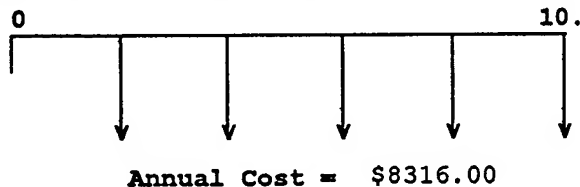
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

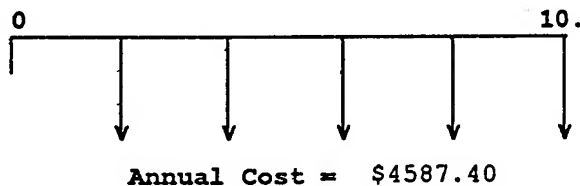
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost,

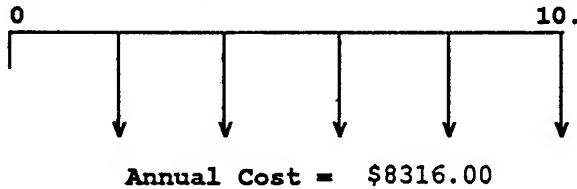
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

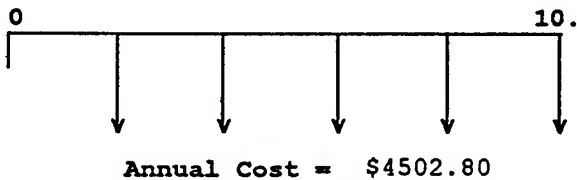
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

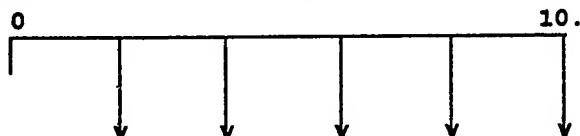
The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost,

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B

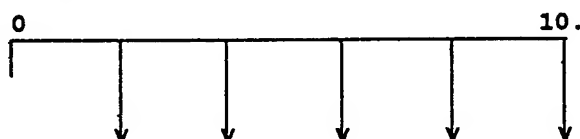


Annual Cost = \$8316.00

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Annual Cost = \$4353.28

Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

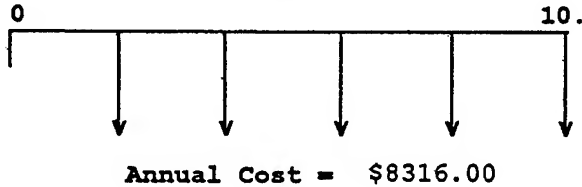
The proposed alternative, Polyurethane Coating Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost,

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

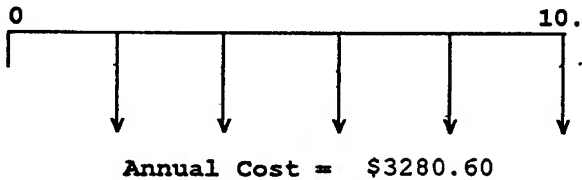
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost,

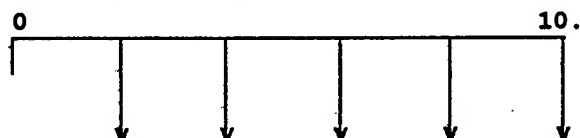
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B



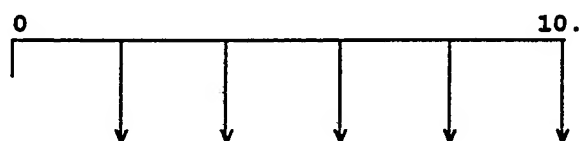
Annual Cost = \$8316.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost,

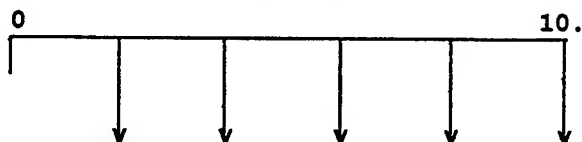
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B



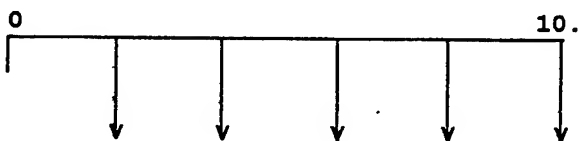
Annual Cost = \$8316.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Annual Cost = \$2340.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost,

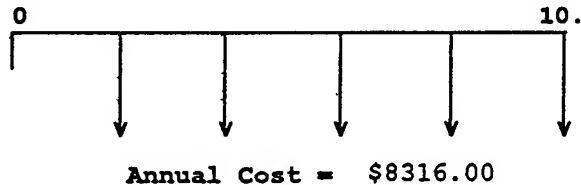
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

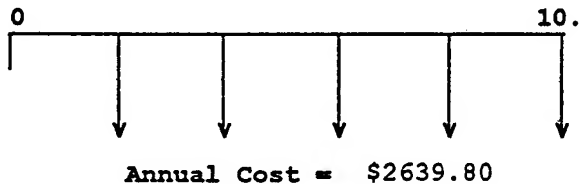
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost,

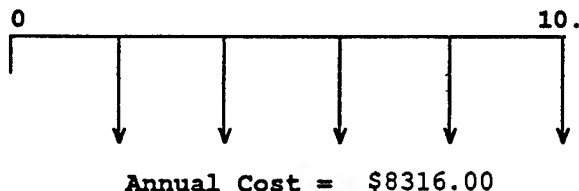
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

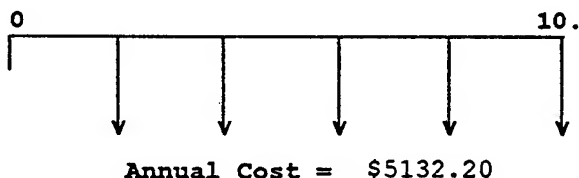
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost,

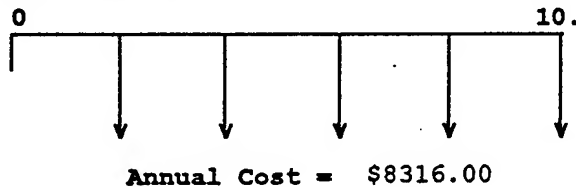
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

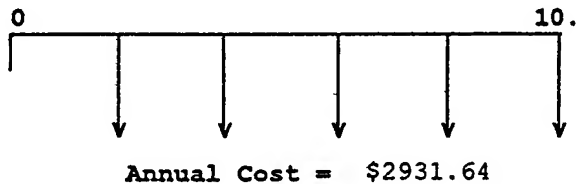
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost,

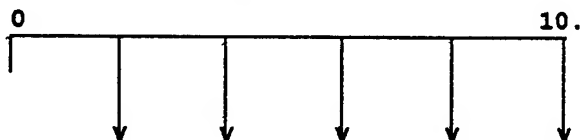
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B



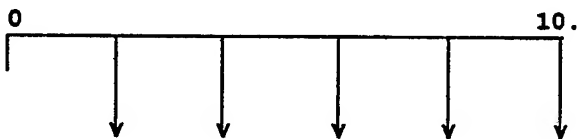
Annual Cost = \$8316.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost,

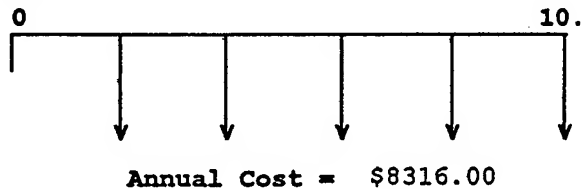
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

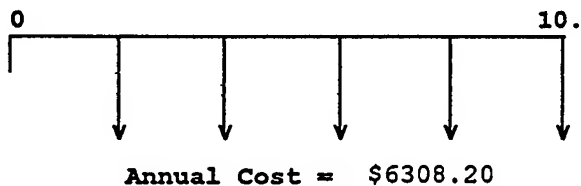
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost,

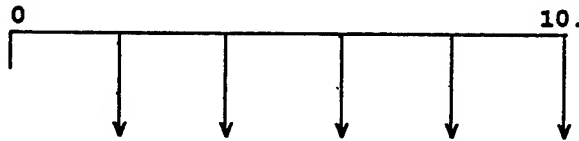
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: EPOXY CATALYST COMP B



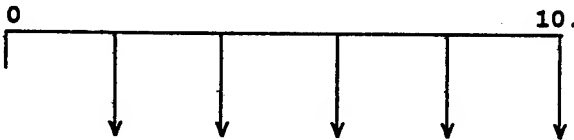
Annual Cost = \$8316.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Annual Cost = \$4244.68

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost,

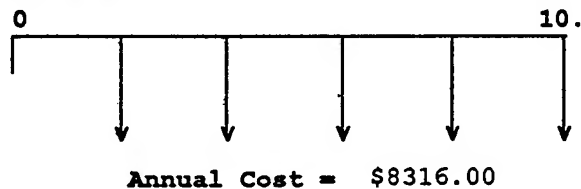
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

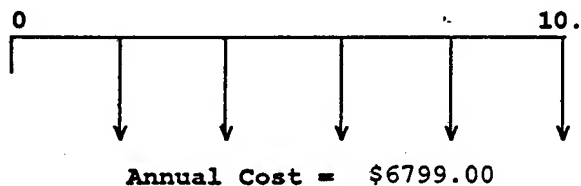
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost,

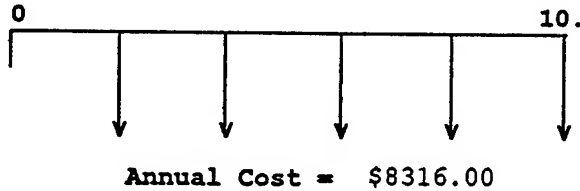
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

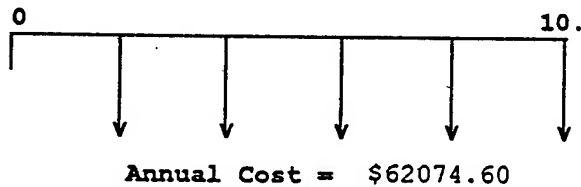
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Epoxy Catalyst Comp B, is preferred because of its lower Net Present Value cost,

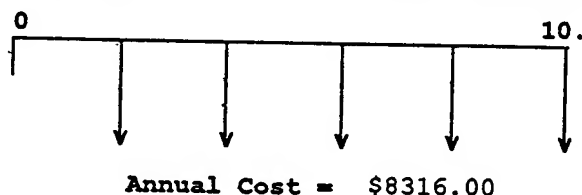
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

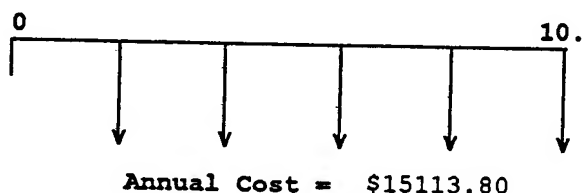
Status Quo Alternative: EPOXY CATALYST COMP B



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$8316.00	7.02360	\$58408.26

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

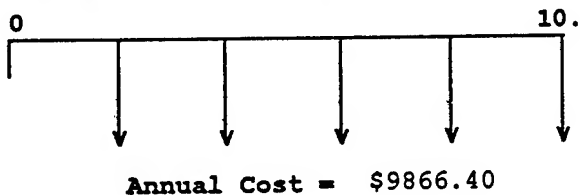
The status quo alternative, Epoxy Catalyst Comp B, is preferred because of its lower Net Present Value cost,

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

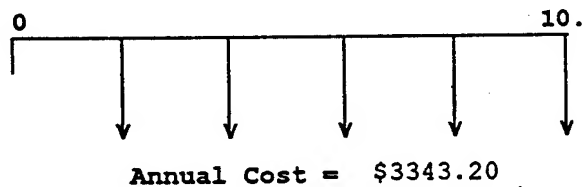


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: MIL-L-81352, LACQUER, ACRYLIC



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3343.20	7.02360	\$23481.30

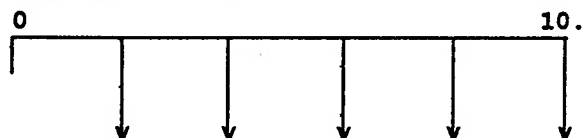
The proposed alternative, MIL-L-81352, Lacquer, Acrylic, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



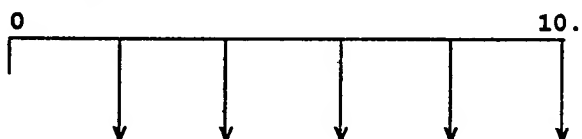
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SO-SURE WHITE 17875 (144-170)



Annual Cost = \$3649.00

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3649.00	7.02360	\$25629.12

The proposed alternative, So-Sure White 17875 (144-170), is preferred because of its lower Net Present Value cost.

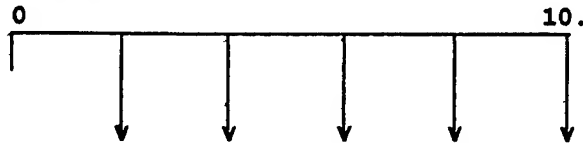
**Figure B-2
The Type II Net Present Value Economic Analysis**

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



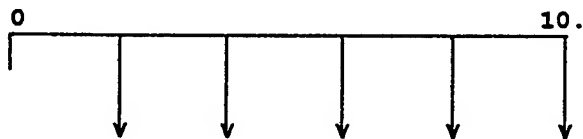
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: 786-516, TT-L-32A, AM-1 TY II BLUE 1510



Annual Cost = \$4120.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4120.60	7.02360	\$28941.45

The proposed alternative, TT-L-32A, AM-1 TY II, Blue 1510, is preferred because of its lower Net Present Value cost.

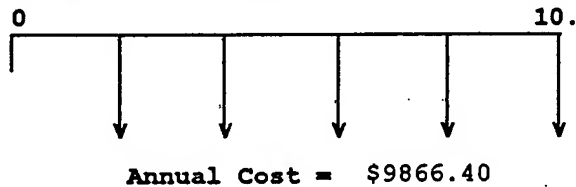
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

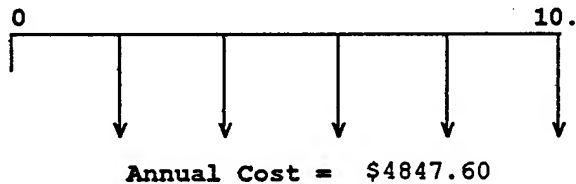
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: COMP A, 1-COAT, 595B 24052 PC03GN246



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4847.60	7.02360	\$34047.60

The proposed alternative, Polyurethane Coating, Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

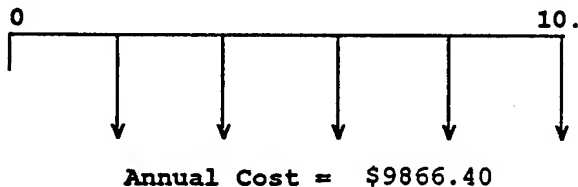
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

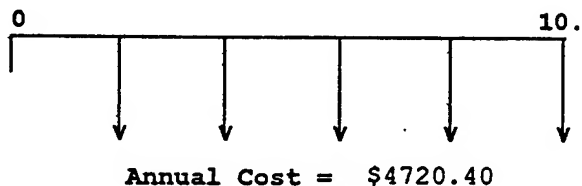
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-P-2756, 37038, 1-COAT PC 03BK098



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4720.40	7.02360	\$33154.20

The proposed alternative, Polyurethane Coating, Black 37038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

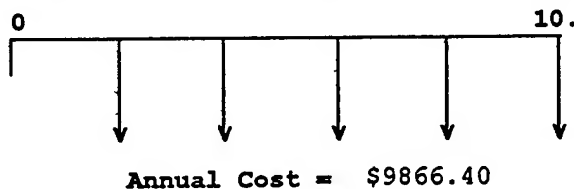
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

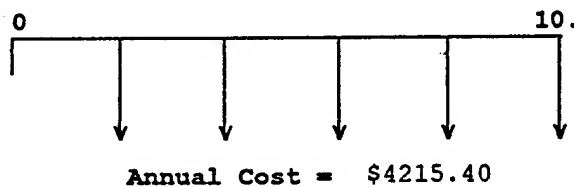
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4215.40	7.02360	\$29607.28

The proposed alternative, Eco-Sure Blue 25042 Semigloss VOC-Compliant, is preferred because of its lower Net Present Value cost.

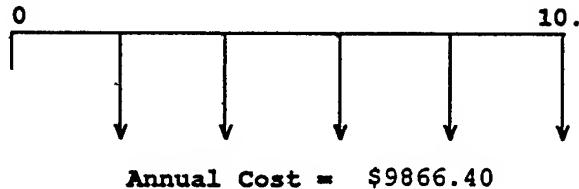
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

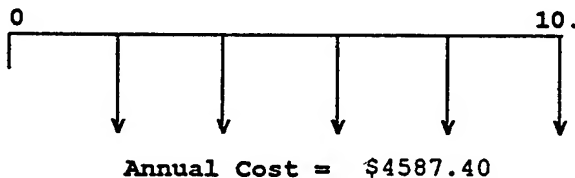


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE BROWN 30117 (674-394) P/N 672C894



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4587.40	7.02360	\$32220.06

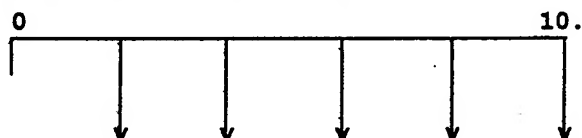
The proposed alternative, Eco-Sure Brown 30117 (674-394) P/N 672C894, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

**The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format**

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



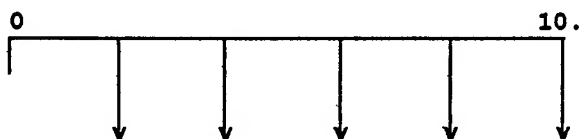
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID7329T106, 340 VOC GRAY TOP COAT 37038



Annual Cost = \$4502.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4502.80	7.02360	\$31625.87

The proposed alternative, Coating Polyurethane High Solids Black 37037, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

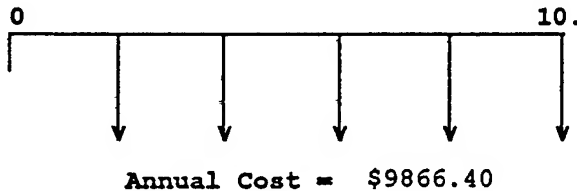
**Figure B-2
The Type II Net Present Value Economic Analysis**

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

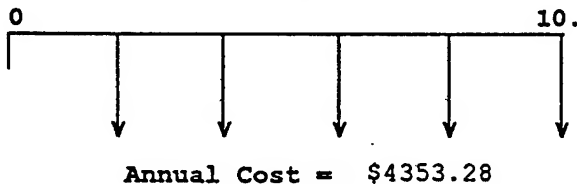
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: 340HS 24052 PC 835G002



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4353.28	7.02360	\$30575.70

The proposed alternative, Polyurethane Coating Green 24052, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

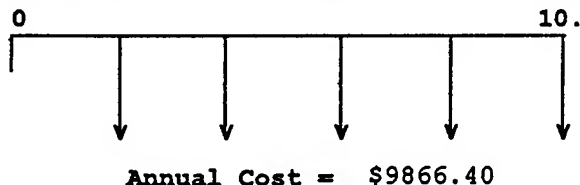
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON (Equal economic lives and equal or no lead time)

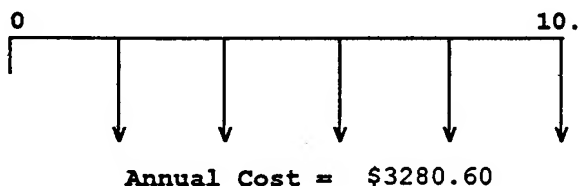
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: TT-L-20A WHITE 37875



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3280.60	7.02360	\$23041.62

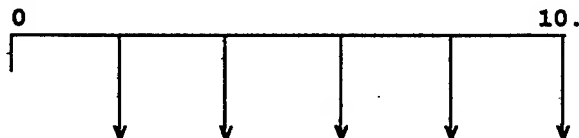
The proposed alternative, TT-L-20A White Lacquer 37875, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



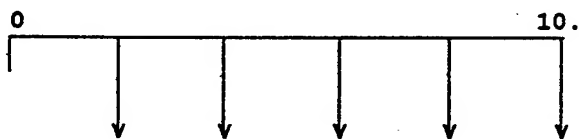
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: HEAT RESISTING EN-TT-E-496 A 14391



Annual Cost = \$3694.60

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$3694.60	7.02360	\$25949.39

The proposed alternative, Heat Resisting EN-TT-E-496 A 14391, is preferred because of its lower Net Present Value cost.

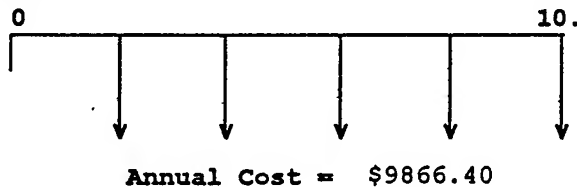
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

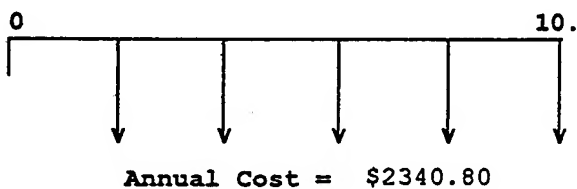
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: A-58A ENAMEL (TT-E-516A)



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2340.80	7.02360	\$16440.84

The proposed alternative, A-58A Enamel (TT-E-516A), is preferred because of its lower Net Present Value cost.

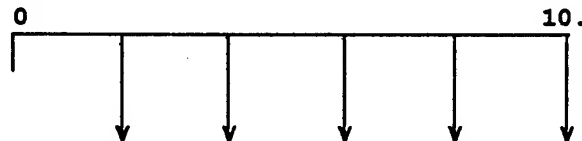
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



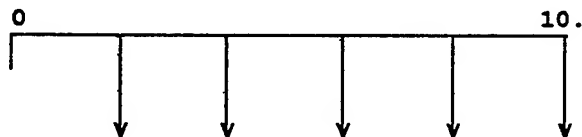
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL ALKYD GLOSS BROWN 10076 ID 742010



Annual Cost = \$2639.80

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2639.80	7.02360	\$18540.90

The proposed alternative, Enamel Alkyd Gloss Brown 10076 ID 742010, is preferred because of its lower Net Present Value cost.

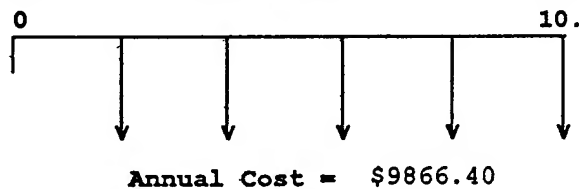
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

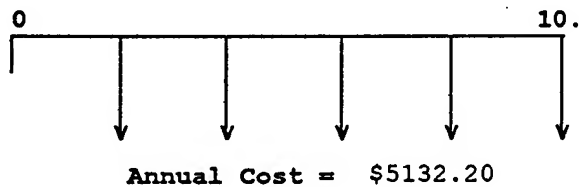


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$5132.20	7.02360	\$36046.52

The proposed alternative, Enamel Alkyd Gloss Low VOC Orange 12197, is preferred because of its lower Net Present Value cost.

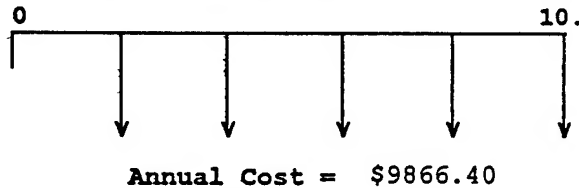
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

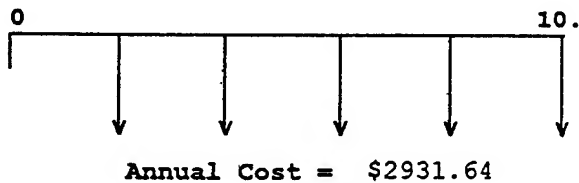


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: TT-E-489H LOW VOC (15182 BLUE)



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$2931.64	7.02360	\$20590.67

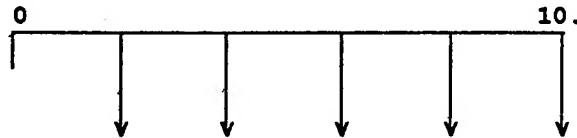
The proposed alternative, Enamel, TT-E-489H Low VOC (Blue), is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



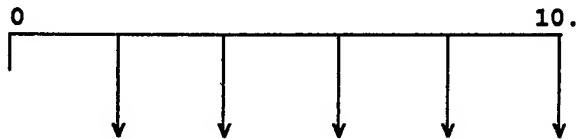
Annual Cost = \$9866.40

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ID 7329T107 340 VOC BLACK TOPCOAT 17038



Annual Cost = \$4862.72

Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4862.72	7.02360	\$34153.80

The proposed alternative, Coating Polyurethane High Solids Black 17038, Parts 1 and 2, is preferred because of its lower Net Present Value cost.

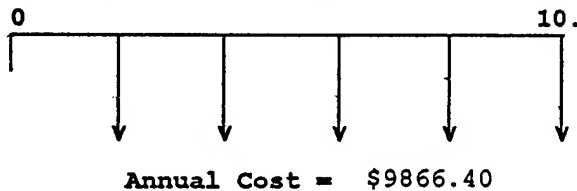
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

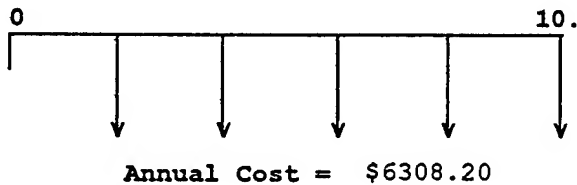


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: ECO-SURE YELLOW 23538 (674-234) P/N 672C834



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6308.20	7.02360	\$44306.27

The proposed alternative, Eco-Sure Yellow 23538 (674-234) P/N 672C834, is preferred because of its lower Net Present Value cost.

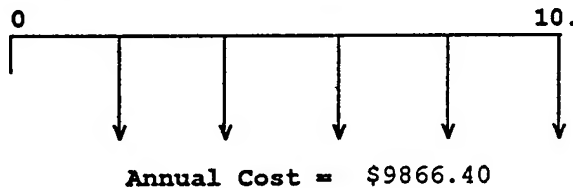
Figure B-2
The Type II Net Present Value Economic Analysis

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The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

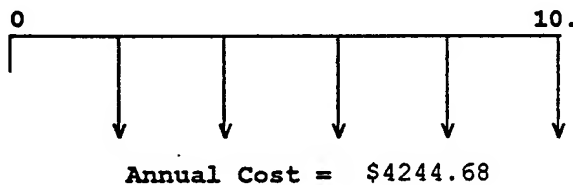


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: A-4300-33538 AEROSOL FLAT YELLOW



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$4244.68	7.02360	\$29812.93

The proposed alternative, A-4300-33538 Aerosol Flat Yellow, is preferred because of its lower Net Present Value cost.

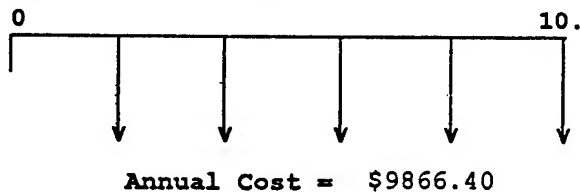
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

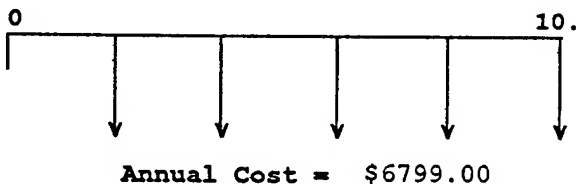


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: COMP A MIL-P-233770 TY 1 CL C



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$6799.00	7.02360	\$47753.46

The proposed alternative, 02-Y-40 3GK Epoxy 13538 Comp A and B, is preferred because of its lower Net Present Value cost.

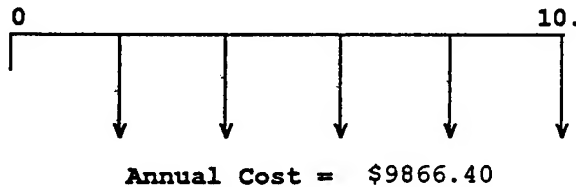
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

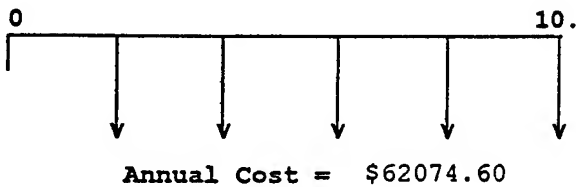
Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Proposed Alternative: MIL-P-23377F EPOXY TY 1 CL 2 513X419



Assumptions:

Economic Life = 10.0
Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$62074.60	7.02360	\$435987.16

The status quo alternative, Catalyst Aliphatic Isocyanate Reactant, is preferred because of its lower Net Present Value cost.

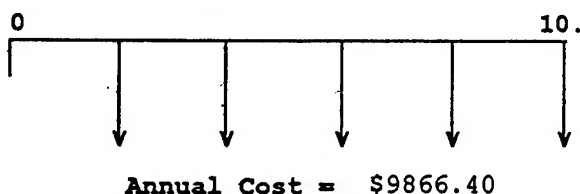
Figure B-2
The Type II Net Present Value Economic Analysis

05/09/96

The NAVFAC P-442 Economic Analysis Model
Type II Economic Analysis Format

NET PRESENT VALUE COMPARISON
(Equal economic lives and equal or no lead time)

Status Quo Alternative: CATALYST ALIPHATIC ISOCYANATE REACTANT

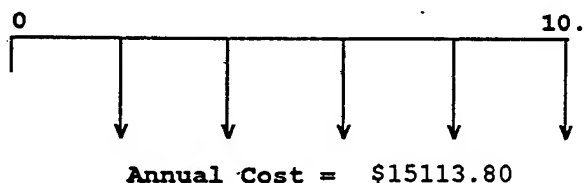


Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Proposed Alternative: SUPER DESOTHANE 828X310, BLACK 37038



Assumptions:

Economic Life = 10.0

Interest Rate = 7.00 %

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$9866.40	7.02360	\$69297.65

Project Year(s)	Cost Element	Amount	Discount Factor	Discount Cost
1 - 10.0	Product and PPE	\$15113.80	7.02360	\$106153.29

The status quo alternative, Catalyst Aliphatic Isocyanate Reactant, is preferred because of its lower Net Present Value cost.

Figure B-2
The Type II Net Present Value Economic Analysis

APPENDIX C

HAZARDOUS MATERIAL SUBSTITUTION
ALGORITHM WORKSHEETS

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed	SS-4004 SILICONE PRIMER			1204 PRIMER		
2	A. Candidate Material/Product Name						
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	MOLD ASSEMBLY, CLEANING			MOLD ASSEMBLY, CLEANING		
5	D. National Stock Number (NSN), if any	8030001236955			8040011557545		
6	E. MSDS, Cage Number	BBCZTV, 01139			BBGPHD, 71984		
7	F. Specific Chemical Constituent Analyzed	ETHYL SILICATE (5.00%)			N-BUTYL ALCOHOL (2.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		33	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	56.00 F			59.00 F		
23	B. Boiling Point (BP)	Not Listed			210.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye Protection Only	3		Respiratory and Eye Protection	6	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		25.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		18			51	
28	10. Material Selection Recommendation	SS-4004 SILICONE PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SS-4004 SILICONE PRIMER			1200 RTV PRIMER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, CLEANING			MOLD ASSEMBLY, CLEANING		
⑤	D. National Stock Number (NSN), if any	8030001236955			8040008700877		
⑥	E. MSDS, Cage Number	BBCZTV, 01139			BBFTHN, 71984		
⑦	F. Specific Chemical Constituent Analyzed	ETHYL SILICATE (5.00%)			NAPHTHA (80.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		18	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	56.00 F			50.00 F		
㉓	B. Boiling Point (BP)	Not Listed			210.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye Protection Only	3		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		25.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		18			37	
㉘	10. Material Selection Recommendation	SS-4004 SILICONE PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SS-4004 SILICONE PRIMER			ALL PURPOSE PRIMER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, CLEANING			MOLD ASSEMBLY, CLEANING		
⑤	D. National Stock Number (NSN), if any	8030001236955			8010006169181		
⑥	E. MSDS, Cage Number	BBCZTV, 01139			BBFJBW, 59581		
⑦	F. Specific Chemical Constituent Analyzed	ETHYL SILICATE (5.00%)			METHYL ISOBUTYL KETONE (2.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		25	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	56.00 F			-10.00 F		
㉓	B. Boiling Point (BP)	Not Listed			118.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye Protection Only	3		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		18			36	
㉘	10. Material Selection Recommendation	SS-4004 SILICONE PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SS-4004 SILICONE PRIMER			NORSIL SILICONE PRIMER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, CLEANING			MOLD ASSEMBLY, CLEANING		
⑤	D. National Stock Number (NSN), if any	8030001236955			8040010091562		
⑥	E. MSDS, Cage Number	BBCZTV, 01139			BBQWFK, 33530		
⑦	F. Specific Chemical Constituent Analyzed	ETHYL SILICATE (5.00%)			ETHYL SILICATE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		10.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	56.00 F			-4.00 F		
㉓	B. Boiling Point (BP)	Not Listed			156.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye Protection Only	3		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		150.00 mmHg	12	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		18			47	
㉘	10. Material Selection Recommendation	SS-4004 SILICONE PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed	MS-143 FLUOROCARBON RELEASE AGENT			1-2531 RELEASE COATING		
2	A. Candidate Material/Product Name						
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
5	D. National Stock Number (NSN), if any	915000F005302			8030012078453		
6	E. MSDS, Cage Number	BBBSFF, 18598			BBPYLG, 71984		
7	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			TOLUENE (14.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			40.00 F		
23	B. Boiling Point (BP)	118.00 F			230.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory and Eye Protection	6	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		22.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			57	
28	10. Material Selection Recommendation	MS-143 FLUOROCARBON RELEASE AGENT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	MS-143 FLUOROCARBON RELEASE AGENT			CAMIE #A1000 DRY LUBRICANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
⑤	D. National Stock Number (NSN), if any	915000F005302			915000F004437		
⑥	E. MSDS, Cage Number	BBBSFF, 18598			BBBQGP, 31868		
⑦	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			METHYLENE CHLORIDE (40.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	118.00 F			102.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		350.00 mmHg	15	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			48	
㉘	10. Material Selection Recommendation	MS-143 FLUOROCARBON RELEASE AGENT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	MS-143 FLUOROCARBON RELEASE AGENT			MS-122N/CO2 TFE RELEASE AGENT/DRY LUBRICANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
⑤	D. National Stock Number (NSN), if any	915000F005302			MS-122N/CO2TF		
⑥	E. MSDS, Cage Number	BBBSFF, 18598			BMS122, 18598		
⑦	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			ISOPROPYL ALCOHOL (3.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		400.00 ppm	3	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	118.00 F			104.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		33.00 mmHg	4	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			37	
㉘	10. Material Selection Recommendation	MS-122N/CO2 TFE RELEASE AGENT/DRY LUBRICANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	MS-143 FLUOROCARBON RELEASE AGENT			MS-136N/CO2 RELEASE AGENT - HOT MOLD		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
⑤	D. National Stock Number (NSN), if any	915000F005302			MS-136N/CO2RE		
⑥	E. MSDS, Cage Number	BBBSFF, 18598			BMS136, 18598		
⑦	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			1,1,1-TRICHLOROETHANE (93.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		350.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		40	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	118.00 F			140.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		79.00 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			48	
㉘	10. Material Selection Recommendation	MS-143 FLUOROCARBON RELEASE AGENT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed	MS-143 FLUOROCARBON RELEASE AGENT			SPECTRUM RELEASE W.B.		
2	A. Candidate Material/Product Name						
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
5	D. National Stock Number (NSN), if any	915000F005302			SPECTRUMRELEA		
6	E. MSDS, Cage Number	BBBSFF, 18598			BBSPEC, 22108		
7	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			NO HAZARDOUS INGREDIENTS (100.0%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		0.00	0	
10	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		18	III
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			212.00 F		
23	B. Boiling Point (BP)	118.00 F			212.00 F		
24	Flammable Combustible Liquids Points		0			3	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			20	
28	10. Material Selection Recommendation	SPECTRUM RELEASE W.B.					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed	MS-143 FLUOROCARBON RELEASE AGENT		RELEASE #1 VOC	
②	A. Candidate Material/Product Name				
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF		MOLD ASSEMBLY, APPL OF	
⑤	D. National Stock Number (NSN), if any	915000F005302		5440011231654	
⑥	E. MSDS, Cage Number	BBBSFF, 18598		BBVVCV, 22108	
⑦	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)		PETROLEUM MID DISTILLATE (50.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5	5.00 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		15 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk	D	1.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		249.00 F	
㉓	B. Boiling Point (BP)	118.00 F		500.00 F	
㉔	Flammable Combustible Liquids Points		0		2
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4	Respiratory and Eye Protection	6
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46		23
㉘	10. Material Selection Recommendation	RELEASE #1 VOC			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	MS-143 FLUOROCARBON RELEASE AGENT			RELEASE ALL SAFELEASE 30		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MOLD ASSEMBLY, APPL OF			MOLD ASSEMBLY, APPL OF		
⑤	D. National Stock Number (NSN), if any	915000F005302			RELEASEALLSAF		
⑥	E. MSDS, Cage Number	BBBSFF, 18598			BBRASf, 96830		
⑦	F. Specific Chemical Constituent Analyzed	FREON 113 (97.00%)			TETRAFLUOROETHYLENE HOMOPOLYMER (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	1000.00 ppm	5		0.00	D	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.50 Hrs/wk		D	1.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	118.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	334.00 mmHg	15		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			21	
㉘	10. Material Selection Recommendation	RELEASE ALL SAFELEASE 30					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PLIOBOND 20		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040002009190		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBPMPZ, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			FORMALDEHYDE (0.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.30 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		100.00 lbs	6	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		41	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			23.00 F		
㉓	B. Boiling Point (BP)	Not Listed			176.00 F		
㉔	Flammable Combustible Liquids Points		1			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		71.00 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			65	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-601 SILICONE SEALANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040010108758		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBMQKF, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			METHYLTRIACETOXYSILANE (6.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		14	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			400.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			1	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		5.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			23	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-690 PRIMER		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
5	D. National Stock Number (NSN), if any	8040004559366			8040010108758		
6	E. MSDS, Cage Number	BBDZGK, 98911			BBMQKG, OKND3		
7	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			METHANOL (4.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		200.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		32	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	480.00 F			56.00 F		
23	B. Boiling Point (BP)	Not Listed			165.00 F		
24	Flammable Combustible Liquids Points		1			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		42.00 mmHg	5	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			53	
28	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			3M SPRAY TRIM ADHESIVE P/N 08074		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040009957080		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBPYKF, 76381		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN			N-HEXANE (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1.00 lbs	10	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		38	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			-50.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		124.00 mmHg	12	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			50	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			EPK 0151, PART A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040000618303		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBJZZZ, 33564		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			SILICA, AMORPHOUS (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			470.00 F		
㉓	B. Boiling Point (BP)	Not Listed			500.00 F		
㉔	Flammable Combustible Liquids Points		1			1	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		0.01 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			20	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			EPK 0151, PART B		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040000618303		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBJYQG, 33564		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			SILICA, AMORPHOUS (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			470.00 F		
㉓	B. Boiling Point (BP)	Not Listed			500.00 F		
㉔	Flammable Combustible Liquids Points		1			1	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		0.01 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			20	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			MMM-A-1058A ADHESIVE, PC-NAPCO		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040009386861		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBJDTL, 59986		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN			HEXANE (57.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		50.00 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1.00 lbs	10	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		35	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye Protection Only	3	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		50.00 mmHg	5	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			43	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			UNSATURATED POLYESTER RESIN		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040002003793		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBJPYG, ARIST		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			STYRENE, MONOMER (50.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		32	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			90.00 F		
㉓	B. Boiling Point (BP)	Not Listed			293.00 F		
㉔	Flammable Combustible Liquids Points		1			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		5.20 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			48	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-631 SILICONE SEALANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040001182694		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBTSMF, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN			SILICA, CRYSTALLINE - QUARTZ (0.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			250.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			2	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		5.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			31	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-322 CLEAR & FD CLEAR EPOXY GEL, PART A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			PSI322CLEAR&F		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BPSI32, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			FUMED SILICA (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		6.00 mg/m3	3	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		13	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			280.00 F		
㉓	B. Boiling Point (BP)	Not Listed			400.00 F		
㉔	Flammable Combustible Liquids Points		1			1	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			18	
㉘	10. Material Selection Recommendation	PSI-322 CLEAR & FD CLEAR EPOXY GEL, PART A					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-322 CLEAR & FD CLEAR EPOXY GEL, PART B		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			PSI322CLEAR&F		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBPSI2, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			FUMED SILICA (45.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		6.00 mg/m3	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			230.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			2	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			20	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			A-1177-B-1 TWO PART EPOXY		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040002708137		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBNCBP, 1HS43		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			NO INFORMATION (0.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			14	
㉘	10. Material Selection Recommendation	A-1177-B-1 TWO PART EPOXY					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			A-1177-B-2 TWO PART EPOXY		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040002708137		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBNPNG, 1HS43		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			CALCIUM CARBONATE (50.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		10.00 mg/m3	3	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		13	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			17	
㉘	10. Material Selection Recommendation	A-1177-B-2 TWO PART EPOXY					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-367 PART A EPOXY PASTE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			PSI367EPOXYPA		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBEPOX, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			GLYCIDYL ETHERS OF BISPHENOL A RESINS		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			14	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-367 PART B EPOXY PASTE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			PSI367EPOXYPA		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBPAST, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	POLYAMIDE RESIN (11.00%)			MODIFIED POLYAMINE (0.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			14	
㉘	10. Material Selection Recommendation	PSI-367 PART B EPOXY PASTE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			GENERAL PURPOSE ADHESIVE SPRAY		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040009386862		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBHQNL, 31868		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLDENEDIPHENOL-EPICHLOROHYDRIN			HEXANE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1.00 lbs	10	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			-43.70 F		
㉔	Flammable Combustible Liquids Points		1			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		55.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			50	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			PSI-613 HIGH TEMPERATURE SILICONE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			PSI613HIGHTEM		
⑥	E. MSDS, Cage Number	B8DZGK, 98911			BPSISS, OKND3		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN			FUMED SILICA (17.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	0		6.00 mg/m3	3	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		13	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			250.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		1			2	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			22	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	A-12 PART A AND B ADHESIVE			L-6261 GSA ADHESIVE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	8040004559366			8040009386863		
⑥	E. MSDS, Cage Number	BBDZGK, 98911			BBNWQC, 31868		
⑦	F. Specific Chemical Constituent Analyzed	R,4-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN			HEXANE (40.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.00	7		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1.00 lbs	10	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		10	III		38	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.50 Hrs/wk		E	0.50 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	480.00 F			-156.00 F		
㉓	B. Boiling Point (BP)	Not Listed			-44.00 F		
㉔	Flammable Combustible Liquids Points		1			10	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Eye and Skin Protection	4		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		125.00 mmHg	12	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		15			69	
㉘	10. Material Selection Recommendation	A-12 PART A AND B ADHESIVE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ACETONE		FINGER LAKES ID/4R,P/N-FLSC-98	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	MANUFACTURE OF VANDAL		MANUFACTURE OF VANDAL	
⑤	D. National Stock Number (NSN), if any	6810013176090		6850013833053	
⑥	E. MSDS, Cage Number	BBLSWJ, 62910		BBSJCR, 0SP4	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		MONOETHANOLAMINE (2.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	3.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		15 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk	D	3.00 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		200.00 F	
㉓	B. Boiling Point (BP)	134.00 F		424.00 F	
㉔	Flammable Combustible Liquids Points		9		3
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory Protection	5
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	0.20 mmHg	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		23
㉘	10. Material Selection Recommendation	FINGER LAKES ID/4R,P/N-FLSC-98			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			FINGER LAKES ID/4R,P/N-FLSC-98		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING MOLDS AND			CLEANING MOLDS AND		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833053		
⑥	E. MSDS, Cage Number	BBSWJ, 62910			BBSJCR, 0SP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			MONOETHANOLAMINE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		3.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			200.00 F		
㉓	B. Boiling Point (BP)	134.00 F			424.00 F		
㉔	Flammable Combustible Liquids Points		9			3	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.20 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			23	
㉘	10. Material Selection Recommendation	FINGER LAKES ID/4R,P/N-FLSC-98					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ACETONE		SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	MANUFACTURE OF VANDAL		MANUFACTURE OF VANDAL	
⑤	D. National Stock Number (NSN), if any	6810013176090		6850013833054	
⑥	E. MSDS, Cage Number	BBSWJ, 62910		BBSJCS, 0SP4	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		SODIUM HYDROXIDE (2.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	2.00 mg/m3	4
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) Table A-2f, RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	1000.00 lbs	4
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		26 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk	D	3.00 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		150.00 F	
㉓	B. Boiling Point (BP)	134.00 F		310.00 F	
㉔	Flammable Combustible Liquids Points		9		5
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	No PPE Requirements Available	0
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	1.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		32
㉘	10. Material Selection Recommendation	SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ACETONE		SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	CLEANING MOLDS AND		CLEANING MOLDS AND	
⑤	D. National Stock Number (NSN), if any	6810013176090		6850013833054	
⑥	E. MSDS, Cage Number	BBLSWJ, 62910		BBSJCS, 0SP4	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		SODIUM HYDROXIDE (2.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	2.00 mg/m3	4
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	1000.00 lbs	4
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		26 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk	D	1.00 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		150.00 F	
㉓	B. Boiling Point (BP)	134.00 F		310.00 F	
㉔	Flammable Combustible Liquids Points		9		5
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	No PPE Requirements Available	0
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	1.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		32
㉘	10. Material Selection Recommendation	SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ACETONE		3-D DEGREASER, P/N-FLSC-97	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	MANUFACTURE OF VANDAL		MANUFACTURE OF VANDAL	
⑤	D. National Stock Number (NSN), if any	6810013176090		6850013833052	
⑥	E. MSDS, Cage Number	BBSLWJ, 62910		BBSJCQ, 0SP4	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		METAPENTA (3.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	2.00 mg/m3	4
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		14 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk		3.00 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)				5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		212.00 F	
㉓	B. Boiling Point (BP)	134.00 F		345.00 F	
㉔	Flammable Combustible Liquids Points		9		3
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	One Point Skin Protection	1
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	2.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		19
㉘	10. Material Selection Recommendation	3-D DEGREASER, P/N-FLSC-97			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			3-D DEGREASER, P/N-FLSC-97		
②	A. Candidate Material/Product Name	ACETONE			3-D DEGREASER, P/N-FLSC-97		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING MOLDS AND			CLEANING MOLDS AND		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833052		
⑥	E. MSDS, Cage Number	BBSWJ, 62910			BBSJCQ, 0SP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			METAPENTA (3.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		2.00 mg/m3	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			212.00 F		
㉓	B. Boiling Point (BP)	134.00 F			345.00 F		
㉔	Flammable Combustible Liquids Points		9			3	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			19	
㉘	10. Material Selection Recommendation	3-D DEGREASER, P/N-FLSC-97					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			NATURE-SOL 100		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MANUFACTURE OF VANDAL			MANUFACTURE OF VANDAL		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013942617		
⑥	E. MSDS, Cage Number	BBSWJ, 62910			BBWMXB, 94058		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			DIPROPYLENE GLYCOL METHYL ETHER (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk		D	3.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			120.00 F		
㉓	B. Boiling Point (BP)	134.00 F			347.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.55 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			28	
㉘	10. Material Selection Recommendation	NATURE-SOL 100					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
(1)	1. Information Needed	INFORMATION	Pts Code	INFORMATION	Pts Code
(2)	A. Candidate Material/Product Name	ACETONE		NATURE-SOL 100	
(3)	B. Located on AUL?	No		No	
(4)	C. Similar Operational Use	CLEANING MOLDS AND		CLEANING MOLDS AND	
(5)	D. National Stock Number (NSN), if any	6810013176090		6850013942617	
(6)	E. MSDS, Cage Number	BBLSWJ, 62910		BBWMXB, 94058	
(7)	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		DIPROPYLENE GLYCOL METHYL ETHER (5.00%)	
(8)	2. Hazard Severity Code (HSC) Element				
(9)	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	100.00 ppm	5
(10)	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
(11)	C. Environmental Impact Attributes				
(12)	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
(13)	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
(14)	(3) Federal/State Permits	Yes	6	Yes	6
(15)	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
(16)	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
(17)	(6) Total Environmental Impact Attributes				
(18)	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		15 III
(19)	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk	D	1.00 Hrs/wk	D
(20)	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
(21)	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
(22)	A. Flash Point (FP)	0.00 F		120.00 F	
(23)	B. Boiling Point (BP)	134.00 F		347.00 F	
(24)	Flammable Combustible Liquids Points		9		6
(25)	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
(26)	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	0.55 mmHg	0
(27)	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		28
(28)	10. Material Selection Recommendation	NATURE-SOL 100			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			BRULIN SD 1291		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MANUFACTURE OF VANDAL			MANUFACTURE OF VANDAL		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013940167		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBWMWX, 94058		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			DIPROPYLENE GLYCOL METHYL ETHER (70.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		100.00 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		17	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk		D	3.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			160.00 F		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.40 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			29	
㉘	10. Material Selection Recommendation	BRULIN SD 1291					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ACETONE	1	BRULIN SD 1291	
③	B. Located on AUL?	No	1	No	
④	C. Similar Operational Use	CLEANING MOLDS AND	1	CLEANING MOLDS AND	
⑤	D. National Stock Number (NSN), if any	6810013176090	1	6850013940167	
⑥	E. MSDS, Cage Number	BBSWJ, 62910	1	BBWMWX, 94058	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)	1	DIPROPYLENE GLYCOL METHYL ETHER (70.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	100.00 ppm	7
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		17 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk	D	1.00 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		160.00 F	
㉓	B. Boiling Point (BP)	134.00 F		212.00 F	
㉔	Flammable Combustible Liquids Points		9		5
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	0.40 mmHg	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		29
㉘	10. Material Selection Recommendation	BRULIN SD 1291			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			SAFETY PREP, FD 080		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	MANUFACTURE OF VANDAL			MANUFACTURE OF VANDAL		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013815088		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	3.00 Hrs/wk		D	3.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	ACETONE			SAFETY PREP, FD 080		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING MOLDS AND			CLEANING MOLDS AND		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013815088		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			FINGER LAKES ID/4R,P/N-FLSC-98		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833053		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCR, 0SPP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			MONOETHANOLAMINE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		3.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			200.00 F		
㉓	B. Boiling Point (BP)	134.00 F			424.00 F		
㉔	Flammable Combustible Liquids Points		9			3	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.20 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			23	
㉘	10. Material Selection Recommendation	FINGER LAKES ID/4R,P/N-FLSC-98					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			FINGER LAKES ID/4R,P/N-FLSC-98		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CAD REMANUFACTURE			CAD REMANUFACTURE		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833053		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCR, 0SPP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			MONOETHANOLAMINE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		3.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk		B	20.00 Hrs/wk		B
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			2			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			200.00 F		
㉓	B. Boiling Point (BP)	134.00 F			424.00 F		
㉔	Flammable Combustible Liquids Points		9			3	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.20 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			23	
㉘	10. Material Selection Recommendation	FINGER LAKES ID/4R,P/N-FLSC-98					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833054		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCS, 0SP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			SODIUM HYDROXIDE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		2.00 mg/m3	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			150.00 F		
㉓	B. Boiling Point (BP)	134.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		1.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			32	
㉘	10. Material Selection Recommendation	SAFE STUFF, LIMONENE CLEANER, P/N-FLSC-75					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			SAFE STUFF, LIMONENE CLEANER,P/N-FLSC-75		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CAD REMANUFACTURE			CAD REMANUFACTURE		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833054		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCS, 0SPP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			SODIUM HYDROXIDE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		2.00 mg/m3	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk		B	20.00 Hrs/wk		B
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			2			2
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			150.00 F		
㉓	B. Boiling Point (BP)	134.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		1.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			32	
㉘	10. Material Selection Recommendation	SAFE STUFF, LIMONENE CLEANER,P/N-FLSC-75					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			3-D DEGREASER, P/N-FLSC-97		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833052		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCQ, 0SPP4		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			METAPENTA (3.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		2.00 mg/m3	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			212.00 F		
㉓	B. Boiling Point (BP)	134.00 F			345.00 F		
㉔	Flammable Combustible Liquids Points		9			3	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			19	
㉘	10. Material Selection Recommendation	3-D DEGREASER, P/N-FLSC-97					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts	Code	
①	1. Information Needed	INFORMATION	Pts	Code	INFORMATION
②	A. Candidate Material/Product Name	ACETONE			3-D DEGREASER, P/N-FLSC-97
③	B. Located on AUL?	No			No
④	C. Similar Operational Use	CAD REMANUFACTURE			CAD REMANUFACTURE
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013833052
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSJCQ, 0SP4
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			METAPENTA (3.00%)
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		2.00 mg/m3
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No
⑭	(3) Federal/State Permits	Yes	6		Yes
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II	
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk		B	20.00 Hrs/wk
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			2	
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F			212.00 F
㉓	B. Boiling Point (BP)	134.00 F			345.00 F
㉔	Flammable Combustible Liquids Points		9		
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		2.00 mmHg
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		
㉘	10. Material Selection Recommendation	3-D DEGREASER, P/N-FLSC-97			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			NATURE-SOL 100		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013942617		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBWMXB, 94058		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			DIPROPYLENE GLYCOL METHYL ETHER (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			120.00 F		
㉓	B. Boiling Point (BP)	134.00 F			347.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.55 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			28	
㉘	10. Material Selection Recommendation	NATURE-SOL 100					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			NATURE-SOL 100		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CAD REMANUFACTURE			CAD REMANUFACTURE		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013942617		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBWMXB, 94058		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			DIPROPYLENE GLYCOL METHYL ETHER (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk		B	20.00 Hrs/wk		B
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			2			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			120.00 F		
㉓	B. Boiling Point (BP)	134.00 F			347.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.55 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			28	
㉘	10. Material Selection Recommendation	NATURE-SOL 100					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			BRULIN SD 1291		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013940167		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBWMWX, 94058		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			DIPROPYLENE GLYCOL METHYL ETHER (70.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		100.00 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		17	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			160.00 F		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		0.40 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			29	
㉘	10. Material Selection Recommendation	BRULIN SD 1291					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed	ACETONE		BRULIN SD 1291	
②	A. Candidate Material/Product Name				
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	CAD REMANUFACTURE		CAD REMANUFACTURE	
⑤	D. National Stock Number (NSN), if any	6810013176090		6850013940167	
⑥	E. MSDS, Cage Number	BBLSWJ, 62910		BBWMWX, 94058	
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)		DIPROPYLENE GLYCOL METHYL ETHER (70.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4	100.00 ppm	7
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		17 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk	B	20.00 Hrs/wk	B
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		2		3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		160.00 F	
㉓	B. Boiling Point (BP)	134.00 F		212.00 F	
㉔	Flammable Combustible Liquids Points		9		5
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12	0.40 mmHg	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56		29
㉘	10. Material Selection Recommendation	BRULIN SD 1291			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ACETONE			SAFETY PREP, FD 080		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	INSPECTION/REWORK			INSPECTION/REWORK		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013815088		
⑥	E. MSDS, Cage Number	BBSLWJ, 62910			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ACETONE			SAFETY PREP, FD 080		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CAD REMANUFACTURE			CAD REMANUFACTURE		
⑤	D. National Stock Number (NSN), if any	6810013176090			6850013815088		
⑥	E. MSDS, Cage Number	BBLSWJ, 62910			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	ACETONE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	750.00 ppm	4		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	20.00 Hrs/wk		B	20.00 Hrs/wk		B
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			2			2
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	134.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	181.00 mmHg	12		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		56			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-GREEN CLEANING SOLVENT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENCLE		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBB205, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			ALIPHATIC PETROLEUM DISTILLATES (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			146.00 F		
㉓	B. Boiling Point (BP)	232.00 F			368.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		1.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			35	
㉘	10. Material Selection Recommendation	KLEAN-GREEN CLEANING SOLVENT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-GREEN CLEANING SOLVENT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENCLE		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBB205, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			ALIPHATIC PETROLEUM DISTILLATES (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			146.00 F		
㉓	B. Boiling Point (BP)	232.00 F			368.00 F		
㉔	Flammable Combustible Liquids Points		9			5	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		1.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			35	
㉘	10. Material Selection Recommendation	KLEAN-GREEN CLEANING SOLVENT					

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HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-STRIP MIL-KLEAN		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENMIL		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBB225, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			SODIUM HYPOCHLORITE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			210.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			28	
㉘	10. Material Selection Recommendation	KLEAN-STRIP MIL-KLEAN					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-STRIP MIL-KLEAN		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENMIL		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBB225, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			SODIUM HYPOCHLORITE SOLUTION (95.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			210.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			28	
㉘	10. Material Selection Recommendation	KLEAN-STRIP MIL-KLEAN					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
(1)	1. Information Needed	INFORMATION	Pts	Code	INFORMATION	Pts	Code
(2)	A. Candidate Material/Product Name	TOLUENE			KLEAN-GREEN TOLUENE/XYLENE SUB		
(3)	B. Located on AUL?	No			No		
(4)	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
(5)	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENTOL		
(6)	E. MSDS, Cage Number	BBREQS, 00000			BB1646, 25451		
(7)	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			PROPYLENE GLYCOL MONOMETHYL ETHER		
(8)	2. Hazard Severity Code (HSC) Element						
(9)	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	5	
(10)	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
(11)	C. Environmental Impact Attributes						
(12)	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
(13)	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
(14)	(3) Federal/State Permits	Yes	6		Yes	6	
(15)	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
(16)	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
(17)	(6) Total Environmental Impact Attributes						
(18)	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		27	II
(19)	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
(20)	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
(21)	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
(22)	A. Flash Point (FP)	45.00 F			30.00 F		
(23)	B. Boiling Point (BP)	232.00 F			172.00 F		
(24)	Flammable Combustible Liquids Points		9			9	
(25)	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
(26)	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		30.00 mmHg	3	
(27)	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			45	
(28)	10. Material Selection Recommendation	KLEAN-GREEN TOLUENE/XYLENE SUB					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	TOLUENE			KLEAN-GREEN TOLUENE/XYLENE SUB		
②	A. Candidate Material/Product Name	No			No		
③	B. Located on AUL?	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
④	C. Similar Operational Use	681000N008149			KLEANGREENTOL		
⑤	D. National Stock Number (NSN), if any	BBREQS, 00000			BB1646, 25451		
⑥	E. MSDS, Cage Number	TOLUENE (100.0%)			PROPYLENE GLYCOL MONOMETHYL ETHER		
⑦	F. Specific Chemical Constituent Analyzed						
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			30.00 F		
㉓	B. Boiling Point (BP)	232.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		30.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			45	
㉘	10. Material Selection Recommendation	KLEAN-GREEN TOLUENE/XYLENE SUB					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			HURRISAFE 9040 SPECIAL FORMULA		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013692475		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBTRBX, 0ZCB7		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			2-BUTOXYETHANOL (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			15	
㉘	10. Material Selection Recommendation	HURRISAFE 9040 SPECIAL FORMULA					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	TOLUENE			HURRISAFE 9040 SPECIAL FORMULA		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013692475		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBTRBX, 0ZCB7		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			2-BUTOXYETHANOL (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			15	
㉘	10. Material Selection Recommendation	HURRISAFE 9040 SPECIAL FORMULA					

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HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			FC056 CITRA SAFE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013780797		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBSGLG, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			D-LIMONENE (97.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			132.00 F		
㉓	B. Boiling Point (BP)	232.00 F			340.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			24	
㉘	10. Material Selection Recommendation	FC056 CITRA SAFE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			FC056 CITRA SAFE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013780797		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBSGLG, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			D-LIMONENE (97.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			132.00 F		
㉓	B. Boiling Point (BP)	232.00 F			340.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			24	
㉘	10. Material Selection Recommendation	FC056 CITRA SAFE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			SAFETY PREP, FD 080		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF MIX BOWL			CLEANING OF MIX BOWL		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013815088		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			SAFETY PREP, FD 080		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	CLEANING OF CAST TOOLING			CLEANING OF CAST TOOLING		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013815088		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBSGMX, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			PROPRIETARY INGREDIENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	1.00 Hrs/wk		D	1.00 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		One Point Skin Protection	1	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		17.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			17	
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	TOLUENE		KLEAN-GREEN CLEANING SOLVENT	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	DAILY CLEANUP OF MIX		DAILY CLEANUP OF MIX	
⑤	D. National Stock Number (NSN), if any	681000N008149		KLEANGREENCLE	
⑥	E. MSDS, Cage Number	BBREQS, 00000		BBB205, 25451	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)		ALIPHATIC PETROLEUM DISTILLATES (100.0%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16	0.00	0
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50 I		22 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk	E	0.25 Hrs/wk	E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	45.00 F		146.00 F	
㉓	B. Boiling Point (BP)	232.00 F		368.00 F	
㉔	Flammable Combustible Liquids Points		9		5
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	1.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71		35
㉘	10. Material Selection Recommendation	KLEAN-GREEN CLEANING SOLVENT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-STRIP MIL-KLEAN		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	DAILY CLEANUP OF MIX			DAILY CLEANUP OF MIX		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENMIL		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBB225, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			SODIUM HYPOCHLORITE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			210.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			28	
㉘	10. Material Selection Recommendation	KLEAN-STRIP MIL-KLEAN					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			KLEAN-GREEN TOLUENE/XYLENE SUB		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	DAILY CLEANUP OF MIX			DAILY CLEANUP OF MIX		
⑤	D. National Stock Number (NSN), if any	681000N008149			KLEANGREENTOL		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BB1646, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			PROPYLENE GLYCOL MONOMETHYL ETHER		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			30.00 F		
㉓	B. Boiling Point (BP)	232.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		30.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			45	
㉘	10. Material Selection Recommendation	KLEAN-GREEN TOLUENE/XYLENE SUB					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	TOLUENE			HURRISAFE 9040 SPECIAL FORMULA		
②	A. Candidate Material/Product Name	No			No		
③	B. Located on AUL?	DAILY CLEANUP OF MIX			DAILY CLEANUP OF MIX		
④	C. Similar Operational Use	681000N008149			6850013692475		
⑤	D. National Stock Number (NSN), if any	BBREQS, 00000			BBTRBX, 0ZCB7		
⑥	E. MSDS, Cage Number	TOLUENE (100.0%)			2-BUTOXYETHANOL (10.00%)		
⑦	F. Specific Chemical Constituent Analyzed						
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	232.00 F			212.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			15	
㉘	10. Material Selection Recommendation	HURRISAFE 9040 SPECIAL FORMULA					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TOLUENE			FC056 CITRA SAFE		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	DAILY CLEANUP OF MIX			DAILY CLEANUP OF MIX		
⑤	D. National Stock Number (NSN), if any	681000N008149			6850013780797		
⑥	E. MSDS, Cage Number	BBREQS, 00000			BBSGLG, 0K209		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)			D-LIMONENE (97.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50	I		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk		E	0.25 Hrs/wk		E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			132.00 F		
㉓	B. Boiling Point (BP)	232.00 F			340.00 F		
㉔	Flammable Combustible Liquids Points		9			6	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71			24	
㉘	10. Material Selection Recommendation	FC056 CITRA SAFE					

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HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	TOLUENE		SAFETY PREP, FD 080	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	DAILY CLEANUP OF MIX		DAILY CLEANUP OF MIX	
⑤	D. National Stock Number (NSN), if any	681000N008149		6850013815088	
⑥	E. MSDS, Cage Number	BBREQS, 00000		BBSGMX, 0K209	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (100.0%)		PROPRIETARY INGREDIENTS (100.0%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16	0.00	0
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		50 I		14 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	0.25 Hrs/wk	E	0.25 Hrs/wk	E
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	45.00 F		Not Listed	
㉓	B. Boiling Point (BP)	232.00 F		212.00 F	
㉔	Flammable Combustible Liquids Points		9		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9	One Point Skin Protection	1
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	17.00 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		71		17
㉘	10. Material Selection Recommendation	SAFETY PREP, FD 080			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			TT-E-545C ALKYD PRIMER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010001806244		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBMBSY, 3Z268		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			FLUX CALCINATED DIATOMACEOUS EARTH		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		No Medical	0	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		11	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			104.00 F		
㉓	B. Boiling Point (BP)	291.00 F			315.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			18	
㉘	10. Material Selection Recommendation	TT-E-545C ALKYD PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			SO-SURE PRIMER YELLOW 33637 P/N 782-831		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010013682633		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBSSFQ, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			N-BUTYL ALCOHOL (6.65%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			Not Listed		
㉓	B. Boiling Point (BP)	291.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			51	
㉘	10. Material Selection Recommendation	97-673 LIQUID COMPONENT PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			FORMULA 84		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010012851329		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBRKMB, 5V430		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			100 SOLVENT (11.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			110.00 F		
㉓	B. Boiling Point (BP)	291.00 F			308.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			38	
㉘	10. Material Selection Recommendation	FORMULA 84					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			TT-P-1757 YELLOW ZINC CHROMATE PRIMER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010005152211		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBFCCG, 34346		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			METHYL ALCOHOL (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		24	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			Not Listed		
㉓	B. Boiling Point (BP)	291.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		98.00 mmHg	10	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			41	
㉘	10. Material Selection Recommendation	TT-P-1757 YELLOW ZINC CHROMATE PRIMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			723423 1 GL		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010005152208		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBFCBZ, 61196		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			ZINC CHROMATE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.01 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			13.00 F		
㉓	B. Boiling Point (BP)	291.00 F			193.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			34	
㉘	10. Material Selection Recommendation	723423 1 GL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			TT-P-1757 ZINC CHROMATE PRIMER (YELLOW)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010002970593		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBJKNH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			ZINC CHROMATE AS CHROMIUM IV (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			Not Listed		
㉓	B. Boiling Point (BP)	291.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			35	
㉘	10. Material Selection Recommendation	TT-P-1757 ZINC CHROMATE PRIMER (YELLOW)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			TT-P-645B FORMULA 84 NO. 33793		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010012851328		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBLLGX, 3Z268		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			ANTIMONY TRIOXIDE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.50 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			102.00 F		
㉓	B. Boiling Point (BP)	291.00 F			274.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			45	
㉘	10. Material Selection Recommendation	TT-P-645B FORMULA 84 NO. 33793					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	97-673 LIQUID COMPONENT PRIMER			LACQUER PRIMER; MIL-P-7962, YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000319			8010005262523		
⑥	E. MSDS, Cage Number	BBBGJS, 47695			BBFCNN, 77672		
⑦	F. Specific Chemical Constituent Analyzed	1-METHOXY-2-PROPANOL (25.00%)			ZINC CHROMATE (22.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		15	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	59.00 F			45.00 F		
㉓	B. Boiling Point (BP)	291.00 F			160.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	25.90 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		48			31	
㉘	10. Material Selection Recommendation	LACQUER PRIMER; MIL-P-7962, YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			T-81772 TYPE 2		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010011680684		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			BBKLMF, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			METHYL ISOBUTYL KETONE (17.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			20.00 F		
㉓	B. Boiling Point (BP)	175.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			54	
㉘	10. Material Selection Recommendation	SOLVENT THINNER MIL-T-81772B, 020X456					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			TT-T-291E THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010002466112		
⑥	E. MSDS, Cage Number	BBSYVW, 85570			BBDNHX, 84239		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			SOLVENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			112.00 F		
㉓	B. Boiling Point (BP)	175.00 F			319.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			23	
㉘	10. Material Selection Recommendation	TT-T-291E THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			MIL-T-81772, THINNER, PAINT PRODUCT		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010001818080		
⑥	E. MSDS, Cage Number	BBSYWW, 85570			BBDGPF, 4N760		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			SEC-HEXYL ACETATE (45.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			42.00 F		
㉓	B. Boiling Point (BP)	175.00 F			179.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		3.80 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			45	
㉘	10. Material Selection Recommendation	MIL-T-81772, THINNER, PAINT PRODUCT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			TL 102 (MIL-T-81772A)		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010001818079		
⑥	E. MSDS, Cage Number	BBSYVW, 85570			BBDGPC, 98502		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			2-ETHOXYETHYL ACETATE (41.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		16	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			23.00 F		
㉓	B. Boiling Point (BP)	175.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			39	
㉘	10. Material Selection Recommendation	TL 102 (MIL-T-81772A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			CSD 81772 TYPE I A		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010012121704		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			BBJFFG, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			TOLUENE (12.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			20.00 F		
㉓	B. Boiling Point (BP)	175.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			62	
㉘	10. Material Selection Recommendation	SOLVENT THINNER MIL-T-81772B, 020X456					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			SYNTHETIC RESIN THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010001605793		
⑥	E. MSDS, Cage Number	BBSYVV, 85570			BBJDYD, 18329		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			N-BUTYL ALCOHOL (20.50%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			55.00 F		
㉓	B. Boiling Point (BP)	175.00 F			231.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			48	
㉘	10. Material Selection Recommendation	SYNTHETIC RESIN THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			TT-T-266D THINNER, PN 1181T4A		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010001605788		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			BBNWHD, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			N-BUTYL ALCOHOL (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			80.60 F		
㉓	B. Boiling Point (BP)	175.00 F			79.60 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			42	
㉘	10. Material Selection Recommendation	TT-T-266D THINNER, PN 1181T4A					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			PAINT THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010002422099		
⑥	E. MSDS, Cage Number	BBSYVV, 85570			BBRKCH, 0A9L8		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			105.00 F		
㉓	B. Boiling Point (BP)	175.00 F			315.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.70 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			43	
㉘	10. Material Selection Recommendation	PAINT THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			CHEVRON THINNER 350H		
3	B. Located on AUL?	Yes			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000N043625			8010002422069		
6	E. MSDS, Cage Number	BBSYVW, 85570			BBJFNL, 33958		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			1,2,4-TRIMETHYLBENZENE (2.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		25.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	45.00 F			105.00 F		
23	B. Boiling Point (BP)	175.00 F			325.00 F		
24	Flammable Combustible Liquids Points		9			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.20 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			40	
28	10. Material Selection Recommendation	CHEVRON THINNER 350H					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			LACQUER THINNER KLEAN STRIP, LT-27		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			801000N022444		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			BBLYBG, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	175.00 F			133.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			47	
㉘	10. Material Selection Recommendation	LACQUER THINNER KLEAN STRIP, LT-27					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			MINERAL SPIRITS KLEAN STRIP, PN-GMS44		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010008377969		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			BBMXJF, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			MINERAL SPIRITS (99.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			104.00 F		
㉓	B. Boiling Point (BP)	175.00 F			316.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		3.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			41	
㉘	10. Material Selection Recommendation	MINERAL SPIRITS KLEAN STRIP, PN-GMS44					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			KLEAN-STRIP PAINT THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			793000B110002		
⑥	E. MSDS, Cage Number	BBSYWV, 85570			167500, 25451		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			STODDARD SOLVENT, TYPE I (98.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		30	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			105.00 F		
㉓	B. Boiling Point (BP)	175.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			44	
㉘	10. Material Selection Recommendation	KLEAN-STRIP PAINT THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SOLVENT THINNER MIL-T-81772B, 020X456			REGULAR MINERAL SPIRITS		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000N043625			8010002422079		
⑥	E. MSDS, Cage Number	BBSYVW, 85570			BBQYCB, 0BBA1		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (10.00%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		1.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		31	I		35	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			105.00 F		
㉓	B. Boiling Point (BP)	175.00 F			321.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		27.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		50			51	
㉘	10. Material Selection Recommendation	SOLVENT THINNER MIL-T-81772B, 020X456					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			T-81772 TYPE 2		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010011680684		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBKLMF, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			METHYL ISOBUTYL KETONE (17.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			20.00 F		
㉓	B. Boiling Point (BP)	410.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			54	
㉘	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			TT-T-291E THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010002466112		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBDNHX, 84239		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			SOLVENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			112.00 F		
㉓	B. Boiling Point (BP)	410.00 F			319.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			23	
㉘	10. Material Selection Recommendation	TT-T-291E THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			MIL-T-81772, THINNER, PAINT PRODUCT		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010001818080		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBDGPF, 4N760		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			SEC-HEXYL ACETATE (45.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			42.00 F		
㉓	B. Boiling Point (BP)	410.00 F			179.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		3.80 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			45	
㉘	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER		TL 102 (MIL-T-81772A)	
③	B. Located on AUL?	Yes		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000456		8010001818079	
⑥	E. MSDS, Cage Number	BBBGRC, 30676		BBBGPC, 98502	
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)		2-ETHOXYETHYL ACETATE (41.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7	5.00 ppm	6
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29 II		16 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	90.00 F		23.00 F	
㉓	B. Boiling Point (BP)	410.00 F		176.00 F	
㉔	Flammable Combustible Liquids Points		8		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45		39
㉘	10. Material Selection Recommendation	TL 102 (MIL-T-81772A)			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			CSD 81772 TYPE I A		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010012121704		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBJFFG, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			TOLUENE (12.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			20.00 F		
㉓	B. Boiling Point (BP)	410.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			62	
㉘	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			SYNTHETIC RESIN THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010001605793		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBJYDY, 18329		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			N-BUTYL ALCOHOL (20.50%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			55.00 F		
㉓	B. Boiling Point (BP)	410.00 F			231.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			48	
㉘	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			TT-T-266D THINNER, PN 1181T4A		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010001605788		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBNWHD, 00297		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			N-BUTYL ALCOHOL (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			80.60 F		
㉓	B. Boiling Point (BP)	410.00 F			79.60 F		
㉔	Flammable Combustible Liquids Points		8			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			42	
㉘	10. Material Selection Recommendation	TT-T-266D THINNER, PN 1181T4A					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER		PAINT THINNER	
③	B. Located on AUL?	Yes		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000456		8010002422099	
⑥	E. MSDS, Cage Number	BBBGRC, 30676		BBRKCH, 0A9L8	
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)		BENZENE (0.01%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	10.00 lbs	8
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29 II		31 I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	90.00 F		105.00 F	
㉓	B. Boiling Point (BP)	410.00 F		315.00 F	
㉔	Flammable Combustible Liquids Points		8		7
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Eye and Skin Protection	4
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1	2.70 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45		43
㉘	10. Material Selection Recommendation	PAINT THINNER			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			CHEVRON THINNER 350H		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			8010002422069		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBJFNL, 33958		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			1,2,4-TRIMETHYLBENZENE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			105.00 F		
㉓	B. Boiling Point (BP)	410.00 F			325.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		2.20 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			40	
㉘	10. Material Selection Recommendation	CHEVRON THINNER 350H					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			LACQUER THINNER KLEAN STRIP, LT-27		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			801000N022444		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			BBLYBG, 25451		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			45.00 F		
㉓	B. Boiling Point (BP)	410.00 F			133.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			47	
㉘	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			MINERAL SPIRITS KLEAN STRIP, PN-GMS44		
3	B. Located on AUL?	Yes			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000F000456			8010008377969		
6	E. MSDS, Cage Number	BBBGRC, 30676			BBMXJF, 25451		
7	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			MINERAL SPIRITS (99.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	8	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		26	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	90.00 F			104.00 F		
23	B. Boiling Point (BP)	410.00 F			316.00 F		
24	Flammable Combustible Liquids Points		8			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		3.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			41	
28	10. Material Selection Recommendation	MINERAL SPIRITS KLEAN STRIP, PN-GMS44					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			KLEAN-STRIP PAINT THINNER		
③	B. Located on AUL?	Yes			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000456			793000B110002		
⑥	E. MSDS, Cage Number	BBBGRC, 30676			167500, 25451		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			STODDARD SOLVENT, TYPE I (98.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		30	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	90.00 F			105.00 F		
㉓	B. Boiling Point (BP)	410.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			44	
㉘	10. Material Selection Recommendation	KLEAN-STRIP PAINT THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	CHEMGLAZE 9951 THINNER			REGULAR MINERAL SPIRITS		
3	B. Located on AUL?	Yes			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000F000456			8010002422079		
6	E. MSDS, Cage Number	BBBGRC, 30676			BBQYCB, 0BBA1		
7	F. Specific Chemical Constituent Analyzed	XYLENE (60.00%)			BENZENE (0.01%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		1.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		29	II		35	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	90.00 F			105.00 F		
23	B. Boiling Point (BP)	410.00 F			321.00 F		
24	Flammable Combustible Liquids Points		8			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	9.00 mmHg	1		27.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			51	
28	10. Material Selection Recommendation	CHEMGLAZE 9951 THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			T-81772 TYPE 2		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010011680684		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBKLMF, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			METHYL ISOBUTYL KETONE (17.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			20.00 F		
㉓	B. Boiling Point (BP)	232.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			54	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			TT-T-291E THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010002466112		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBDNHX, 84239		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			SOLVENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			112.00 F		
㉓	B. Boiling Point (BP)	232.00 F			319.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			23	
㉘	10. Material Selection Recommendation	TT-T-291E THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			MIL-T-81772, THINNER, PAINT PRODUCT		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010001605794			8010001818080		
6	E. MSDS, Cage Number	BBHCYF, 5W216			BBDGPF, 4N760		
7	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			SEC-HEXYL ACETATE (45.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	6	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		28	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	73.00 F			42.00 F		
23	B. Boiling Point (BP)	232.00 F			179.00 F		
24	Flammable Combustible Liquids Points		8			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		3.80 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			45	
28	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			TL 102 (MIL-T-81772A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010001818079		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBDGPC, 98502		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			2-ETHOXYETHYL ACETATE (41.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		5.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		16	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			23.00 F		
㉓	B. Boiling Point (BP)	232.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			39	
㉘	10. Material Selection Recommendation	TL 102 (MIL-T-81772A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			CSD 81772 TYPE I A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010012121704		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBJFFG, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			TOLUENE (12.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			20.00 F		
㉓	B. Boiling Point (BP)	232.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			62	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			SYNTHETIC RESIN THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010001605793		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBJYDY, 18329		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			N-BUTYL ALCOHOL (20.50%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			55.00 F		
㉓	B. Boiling Point (BP)	232.00 F			231.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			48	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			TT-T-266D THINNER, PN 1181T4A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010001605788		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBNWHD, 00297		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			N-BUTYL ALCOHOL (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			80.60 F		
㉓	B. Boiling Point (BP)	232.00 F			79.60 F		
㉔	Flammable Combustible Liquids Points		8			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			42	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			PAINT THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010002422099		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBRKCH, 0A9L8		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			105.00 F		
㉓	B. Boiling Point (BP)	232.00 F			315.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.70 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			CHEVRON THINNER 350H		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010002422069		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBJFNL, 33958		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			1,2,4-TRIMETHYLBENZENE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			105.00 F		
㉓	B. Boiling Point (BP)	232.00 F			325.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.20 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			40	
㉘	10. Material Selection Recommendation	CHEVRON THINNER 350H					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	THINNER SYNTHETIC RESIN ENAMEL			LACQUER THINNER KLEAN STRIP, LT-27		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			801000N022444		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBLYBG, 25451		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			45.00 F		
㉓	B. Boiling Point (BP)	232.00 F			133.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			47	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			MINERAL SPIRITS KLEAN STRIP, PN-GMS44		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010008377969		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBMXJF, 25451		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			MINERAL SPIRITS (99.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			104.00 F		
㉓	B. Boiling Point (BP)	232.00 F			316.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		3.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	THINNER SYNTHETIC RESIN ENAMEL			KLEAN-STRIP PAINT THINNER		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			793000B110002		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			167500, 25451		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			STODDARD SOLVENT, TYPE I (98.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		30	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			105.00 F		
㉓	B. Boiling Point (BP)	232.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			44	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER SYNTHETIC RESIN ENAMEL			REGULAR MINERAL SPIRITS		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001605794			8010002422079		
⑥	E. MSDS, Cage Number	BBHCYF, 5W216			BBQYCB, 0BBA1		
⑦	F. Specific Chemical Constituent Analyzed	N-BUTYL ALCOHOL (22.00%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		1.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		25	II		35	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	73.00 F			105.00 F		
㉓	B. Boiling Point (BP)	232.00 F			321.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		27.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			51	
㉘	10. Material Selection Recommendation	THINNER SYNTHETIC RESIN ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS		T-81772 TYPE 2	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010005587026		8010011680684	
⑥	E. MSDS, Cage Number	BBSYYM, 5W216		BBKLMF, 7L600	
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)		METHYL ISOBUTYL KETONE (17.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30 I		29 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	100.00 F		20.00 F	
㉓	B. Boiling Point (BP)	396.00 F		175.00 F	
㉔	Flammable Combustible Liquids Points		7		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	9
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45		54
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			TT-T-291E THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010002466112		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBDNHX, 84239		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			SOLVENTS (100.0%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		10	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			112.00 F		
㉓	B. Boiling Point (BP)	396.00 F			319.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			23	
㉘	10. Material Selection Recommendation	TT-T-291E THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			MIL-T-81772, THINNER, PAINT PRODUCT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010001818080		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBDGPF, 4N760		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			SEC-HEXYL ACETATE (45.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			42.00 F		
㉓	B. Boiling Point (BP)	396.00 F			179.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		3.80 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			45	
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			TL 102 (MIL-T-81772A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010001818079		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBDGPC, 98502		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			2-ETHOXYETHYL ACETATE (41.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		5.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		16	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			23.00 F		
㉓	B. Boiling Point (BP)	396.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			39	
㉘	10. Material Selection Recommendation	TL 102 (MIL-T-81772A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			CSD 81772 TYPE I A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010012121704		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBJFFG, 7L600		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			TOLUENE (12.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			20.00 F		
㉓	B. Boiling Point (BP)	396.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			62	
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			SYNTHETIC RESIN THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010001605793		
⑥	E. MSDS, Cage Number	BBSYIM, 5W216			BBJYDY, 18329		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			N-BUTYL ALCOHOL (20.50%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			55.00 F		
㉓	B. Boiling Point (BP)	396.00 F			231.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			48	
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			TT-T-266D THINNER, PN 1181T4A		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010001605788		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBNWHD, 00297		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			N-BUTYL ALCOHOL (30.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			80.60 F		
㉓	B. Boiling Point (BP)	396.00 F			79.60 F		
㉔	Flammable Combustible Liquids Points		7			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			42	
㉘	10. Material Selection Recommendation	TT-T-266D THINNER, PN 1181T4A					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			PAINT THINNER		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010002422099		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBRKCH, 0A9L8		
⑦	F. Specific Chemical Constituent Analyzed	ALUPHATIC PETROLEUM DISTILLATES (100.0%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			105.00 F		
㉓	B. Boiling Point (BP)	396.00 F			315.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Eye and Skin Protection	4	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		2.70 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			43	
㉘	10. Material Selection Recommendation	PAINT THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			CHEVRON THINNER 350H		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010002422069		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBJFNL, 33958		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			1,2,4-TRIMETHYLBENZENE (2.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		25.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			105.00 F		
㉓	B. Boiling Point (BP)	396.00 F			325.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		2.20 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			40	
㉘	10. Material Selection Recommendation	CHEVRON THINNER 350H					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			LACQUER THINNER KLEAN STRIP, LT-27		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			801000N022444		
⑥	E. MSDS, Cage Number	BBSYIM, 5W216			BBLYBG, 25451		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			45.00 F		
㉓	B. Boiling Point (BP)	396.00 F			133.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			47	
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			MINERAL SPIRITS KLEAN STRIP, PN-GMS44		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010008377969		
⑥	E. MSDS, Cage Number	BBSYIM, 5W216			BBMXJF, 25451		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			MINERAL SPIRITS (99.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			104.00 F		
㉓	B. Boiling Point (BP)	396.00 F			316.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		3.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			41	
㉘	10. Material Selection Recommendation	MINERAL SPIRITS KLEAN STRIP, PN-GMS44					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			KLEAN-STRIP PAINT THINNER		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			793000B110002		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			167500, 25451		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			STODDARD SOLVENT, TYPE I (98.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		100.00 ppm	8	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		30	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			105.00 F		
㉓	B. Boiling Point (BP)	396.00 F			310.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		2.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			44	
㉘	10. Material Selection Recommendation	KLEAN-STRIP PAINT THINNER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS			REGULAR MINERAL SPIRITS		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005587026			8010002422079		
⑥	E. MSDS, Cage Number	BBSYYM, 5W216			BBQYCB, 0BBA1		
⑦	F. Specific Chemical Constituent Analyzed	ALIPHATIC PETROLEUM DISTILLATES (100.0%)			BENZENE (0.01%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	16		1.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		35	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	100.00 F			105.00 F		
㉓	B. Boiling Point (BP)	396.00 F			321.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory and Eye Protection	6	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	3.10 mmHg	1		27.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		45			51	
㉘	10. Material Selection Recommendation	THINNER, PAINT TYPE I - REGULAR MINERAL SPIRITS					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010009357062		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBFXTJ, 12904		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			35.00 F		
㉓	B. Boiling Point (BP)	Not Listed			176.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			43	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010009356609		
⑥	E. MSDS, Cage Number	BBB8GWJ, 86142			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			53	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT		786-516, TT-L-32A, AM-1 TY II BLUE 1510	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000542		8010006800144	
⑥	E. MSDS, Cage Number	BBBGWJ, 86142		BBFLDP, 09868	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)		ISOBUTYL ALCOHOL (8.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		29 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		30.00 F	
㉓	B. Boiling Point (BP)	Not Listed		118.00 F	
㉔	Flammable Combustible Liquids Points		0		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	9.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38		46
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013540968		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013540968		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			44	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013408713		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			40	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT		CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000542		8010013408713	
⑥	E. MSDS, Cage Number	BBBGWJ, 86142		BBQGWG, 33461	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)		ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	0.05 ppm	7
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		21 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		76.00 F	
㉓	B. Boiling Point (BP)	Not Listed		260.00 F	
㉔	Flammable Combustible Liquids Points		0		8
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38		36
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013323737		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			40	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013323739		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			41	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010012938260		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBHXIX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			34.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			38	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010012938260		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			60	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013303435		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			80.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			42	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013303435		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			89.00 F		
㉓	B. Boiling Point (BP)	Not Listed			300.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			43	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010005305326		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			23.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			42	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010002972012		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			103.00 F		
㉓	B. Boiling Point (BP)	Not Listed			307.00 F		
㉔	Flammable Combustible Liquids Points		0			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010008785761		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			67.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000F000542			8010002982304		
6	E. MSDS, Cage Number	BBBGWJ, 86142			BBJLGL, 61196		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			LEAD CHROMATE (1.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.05 mg/m3	5	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			102.00 F		
23	B. Boiling Point (BP)	Not Listed			302.00 F		
24	Flammable Combustible Liquids Points		0			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			41	
28	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010005273200		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			24.00 F		
㉓	B. Boiling Point (BP)	Not Listed			139.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			50	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT		TT-E-489H LOW VOC (15182 BLUE)	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000542		8010010366344	
⑥	E. MSDS, Cage Number	BBBGWJ, 86142		BBVZJC, 00297	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)		METHYL N-AMYL KETONE (10.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Permanent,	12
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		23 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		56.00 F	
㉓	B. Boiling Point (BP)	Not Listed		Not Listed	
㉔	Flammable Combustible Liquids Points		0		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	2.10 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38		31
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT		ID 7329T107 340 VOC BLACK TOPCOAT 17038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000F000542		8010012936181	
⑥	E. MSDS, Cage Number	BBBGWJ, 86142		BBHXKL, 98795	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)		METHYL N-AMYL KETONE (20.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28 II		19 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		26.00 F	
㉓	B. Boiling Point (BP)	Not Listed		172.00 F	
㉔	Flammable Combustible Liquids Points		0		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	2.10 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38		36
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010012936181		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			52	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013323746		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			41	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013323745		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			-44.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			49	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			46.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			46	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			72.00 F		
㉓	B. Boiling Point (BP)	Not Listed			211.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			43	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013162552		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			61.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			59	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010013162552		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			51.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			54	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON HIGH HEAT SPRAY PAINT			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000F000542			8010004825671		
⑥	E. MSDS, Cage Number	BBBGWJ, 86142			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (33.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		28	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			22.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		38			43	
㉘	10. Material Selection Recommendation	KRYLON HIGH HEAT SPRAY PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			MIL-L-81352, LACQUER, ACRYLIC		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010005218842			8010009357062		
6	E. MSDS, Cage Number	BBFCKV, 86142			BBFXTF, 12904		
7	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			TOLUENE (15.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			35.00 F		
23	B. Boiling Point (BP)	Not Listed			176.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		22.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			43	
28	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010009356609		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			53	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010006800144		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			30.00 F		
㉓	B. Boiling Point (BP)	Not Listed			118.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			46	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013540968		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			35	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013540968		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			44	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013408713		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			40	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013408713		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			76.00 F		
㉓	B. Boiling Point (BP)	Not Listed			260.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			36	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013323737		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			40	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013323739		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			41	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT		ID7329T106, 340 VOC GRAY TOP COAT 37038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010005218842		8010012938260	
⑥	E. MSDS, Cage Number	BBFCKV, 86142		BBHXKX, 98795	
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)		PROPRIETARY INFORMATION	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.00	0
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		22 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		34.00 F	
㉓	B. Boiling Point (BP)	Not Listed		172.00 F	
㉔	Flammable Combustible Liquids Points		0		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35		38
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ID 0320T136 HS HARDENER MIL-C-85285		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010005218842			8010012938260		
6	E. MSDS, Cage Number	BBFCKV, 86142			BBHXKY, 98795		
7	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL ETHYL KETONE (20.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		36	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			26.00 F		
23	B. Boiling Point (BP)	Not Listed			172.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		71.20 mmHg	8	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			60	
28	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013303435		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			80.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			42	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013303435		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			89.00 F		
㉓	B. Boiling Point (BP)	Not Listed			300.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			43	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010005305326		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			23.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			42	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010002972012		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			103.00 F		
㉓	B. Boiling Point (BP)	Not Listed			307.00 F		
㉔	Flammable Combustible Liquids Points		0			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010008785761		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			67.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010002982304		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			102.00 F		
㉓	B. Boiling Point (BP)	Not Listed			302.00 F		
㉔	Flammable Combustible Liquids Points		0			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			41	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010005273200		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			24.00 F		
㉓	B. Boiling Point (BP)	Not Listed			139.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			50	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010010366344		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			56.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010012936181		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			36	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010012936181		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			52	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013323746		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			41	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013323745		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			-44.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			49	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
①	1. Information Needed	INFORMATION	Pts	Code	INFORMATION	Pts	Code
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			46.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			46	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT		COMP B, MIL-P-23377G, TY 1 CL C	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010005218842		801002Y403GK1	
⑥	E. MSDS, Cage Number	BBFCKV, 86142		BB0Y04, 33461	
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)		SEC-BUTYL ALCOHOL (25.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	100.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	4	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	Not Listed		72.00 F	
㉓	B. Boiling Point (BP)	Not Listed		211.00 F	
㉔	Flammable Combustible Liquids Points		0		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory Protection	5
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1	12.50 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35		43
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010005218842			8010013162552		
6	E. MSDS, Cage Number	BBFCKV, 86142			BBVYKT, 85570		
7	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
10	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		43	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	Not Listed			61.00 F		
23	B. Boiling Point (BP)	Not Listed			175.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		0.00 mmHg	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			59	
28	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010013162552		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			51.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			54	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	KRYLON 1402 HIGH HEAT ALUMINUM PAINT			SUPER DESOTHAINE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005218842			8010004825671		
⑥	E. MSDS, Cage Number	BBFCKV, 86142			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	XYLENE (10.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	Not Listed			22.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	6.00 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		35			43	
㉘	10. Material Selection Recommendation	KRYLON 1402 HIGH HEAT ALUMINUM PAINT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010009357062		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBFXT, 12904		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			35.00 F		
㉓	B. Boiling Point (BP)	237.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010009356609		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			Not Listed		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			53	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010006800144		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			30.00 F		
㉓	B. Boiling Point (BP)	237.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			46	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,		COMP A, 1-COAT, 595B 24052 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012180856		8010013540968	
⑥	E. MSDS, Cage Number	BBGQTS, 33461		BBRKNB, 33461	
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)		DIBUTYLTIN DILAURATE (0.10%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.10 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		19 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	87.00 F		45.00 F	
㉓	B. Boiling Point (BP)	237.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		8		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		35
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013540968		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			45.00 F		
㉓	B. Boiling Point (BP)	237.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			44	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013408713		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			45.00 F		
㉓	B. Boiling Point (BP)	237.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			40	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013408713		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQG WG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			76.00 F		
㉓	B. Boiling Point (BP)	237.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		8			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			36	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013323737		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			Not Listed		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			40	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010012180856			8010013323739		
6	E. MSDS, Cage Number	BBGQTS, 33461			BBTGMC, 0FTT5		
7	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			AROMATIC 150 (3.20%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	87.00 F			Not Listed		
23	B. Boiling Point (BP)	237.00 F			Not Listed		
24	Flammable Combustible Liquids Points		8			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			41	
28	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010012938260		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			34.00 F		
㉓	B. Boiling Point (BP)	237.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			38	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ID 0320T136 HS HARDENER MIL-C-85285		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010012180856			8010012938260		
6	E. MSDS, Cage Number	BBGQTS, 33461			BBHXKY, 98795		
7	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL ETHYL KETONE (20.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		36	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	87.00 F			26.00 F		
23	B. Boiling Point (BP)	237.00 F			172.00 F		
24	Flammable Combustible Liquids Points		8			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		71.20 mmHg	8	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			60	
28	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013303435		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			80.00 F		
㉓	B. Boiling Point (BP)	237.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		8			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			42	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013303435		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			89.00 F		
㉓	B. Boiling Point (BP)	237.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		8			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010005305326		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			23.00 F		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			42	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010002972012		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			103.00 F		
㉓	B. Boiling Point (BP)	237.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010008785761		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			67.00 F		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010002982304		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			102.00 F		
㉓	B. Boiling Point (BP)	237.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		8			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			41	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010005273200		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			24.00 F		
㉓	B. Boiling Point (BP)	237.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			50	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010010366344		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			56.00 F		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010012936181		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			26.00 F		
㉓	B. Boiling Point (BP)	237.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			36	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010012936181		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			26.00 F		
㉓	B. Boiling Point (BP)	237.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			52	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013323746		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			Not Listed		
㉓	B. Boiling Point (BP)	237.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			41	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013323745		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			Not Listed		
㉓	B. Boiling Point (BP)	237.00 F			-44.00 F		
㉔	Flammable Combustible Liquids Points		8			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			49	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			46.00 F		
㉓	B. Boiling Point (BP)	237.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			46	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			72.00 F		
㉓	B. Boiling Point (BP)	237.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013162552		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			61.00 F		
㉓	B. Boiling Point (BP)	237.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			59	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010013162552		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			51.00 F		
㉓	B. Boiling Point (BP)	237.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			54	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1,			SUPER DESOTHAINE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012180856			8010004825671		
⑥	E. MSDS, Cage Number	BBGQTS, 33461			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	NITROETHANE (15.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	87.00 F			22.00 F		
㉓	B. Boiling Point (BP)	237.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		8			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	EPOXY, COMP B, MIL-P-85582B, TY 1 CL C1, 44GN007CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010009357062		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBFXTTP, 12904		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		0.00 tons/yr	10	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		41	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			35.00 F		
㉓	B. Boiling Point (BP)	230.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			53	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			SO-SURE WHITE 17875 (144-170)		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010011930520			8010009356609		
6	E. MSDS, Cage Number	BBGQTT, 33461			BBPGBV, 0FTT5		
7	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			TOLUENE (6.85%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	45.00 F			Not Listed		
23	B. Boiling Point (BP)	230.00 F			Not Listed		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		65.00 mmHg	7	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			53	
28	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010006800144		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			30.00 F		
㉓	B. Boiling Point (BP)	230.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			46	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE		COMP A, 1-COAT, 595B 24052 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010011930520		8010013540968	
⑥	E. MSDS, Cage Number	BBGQTT, 33461		BBRKNB, 33461	
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)		DIBUTYL TIN DILAUATE (0.10%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6	0.10 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30 I		19 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	45.00 F		45.00 F	
㉓	B. Boiling Point (BP)	230.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46		35
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013540968		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	230.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			44	
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			TT-P-2756, 37038, 1-COAT PC 03BK098		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013408713		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	230.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013408713		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQGWW, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			76.00 F		
㉓	B. Boiling Point (BP)	230.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013323737		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013323739		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			41	
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			ID7329T106, 340 VOC GRAY TOP COAT 37038		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010012938260		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			34.00 F		
㉓	B. Boiling Point (BP)	230.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			38	
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010012938260		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	230.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			60	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			340HS 24052 PC 835G002		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013303435		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			80.00 F		
㉓	B. Boiling Point (BP)	230.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			DS 340 HS C/S PC 930G039		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013303435		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			89.00 F		
㉓	B. Boiling Point (BP)	230.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			TT-L-20A WHITE 37875		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010005305326		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			23.00 F		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			HEAT RESISTING EN-TT-E-496 A 14391		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010002972012		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			103.00 F		
㉓	B. Boiling Point (BP)	230.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			A-58A ENAMEL (TT-E-516A)		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010008785761		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			67.00 F		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010002982304		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			102.00 F		
㉓	B. Boiling Point (BP)	230.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010005273200		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			24.00 F		
㉓	B. Boiling Point (BP)	230.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			50	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			TT-E-489H LOW VOC (15182 BLUE)		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010010366344		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			56.00 F		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010012936181		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	230.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010012936181		
⑥	E. MSDS, Cage Number	88GQTT, 33461			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	230.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			52	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013323746		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	230.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013323745		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	230.00 F			-44.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			49	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			46.00 F		
㉓	B. Boiling Point (BP)	230.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			46	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			72.00 F		
㉓	B. Boiling Point (BP)	230.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	ALIPHATIC ISOCYANATE			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013162552		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			61.00 F		
㉓	B. Boiling Point (BP)	230.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			59	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	ALIPHATIC ISOCYANATE			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011930520			8010013162552		
⑥	E. MSDS, Cage Number	BBGQTT, 33461			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			51.00 F		
㉓	B. Boiling Point (BP)	230.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46			54	
㉘	10. Material Selection Recommendation	ALIPHATIC ISOCYANATE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		Information	Pts Code	Information	Pts Code
1	1. Information Needed	ALIPHATIC ISOCYANATE		SUPER DESOTHANE 828X310, BLACK 37038	
2	A. Candidate Material/Product Name				
3	B. Located on AUL?	No		No	
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
5	D. National Stock Number (NSN), if any	8010011930520		8010004825671	
6	E. MSDS, Cage Number	BBGQTT, 33461		BBFBBD, 62758	
7	F. Specific Chemical Constituent Analyzed	METHYL ISOBUTYL KETONE (35.00%)		AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED	
8	2. Hazard Severity Code (HSC) Element				
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6	0.10 mg/m3	5
10	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
11	C. Environmental Impact Attributes				
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
14	(3) Federal/State Permits	Yes	6	Yes	6
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
17	(6) Total Environmental Impact Attributes				
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		30 I		27 II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
22	A. Flash Point (FP)	45.00 F		22.00 F	
23	B. Boiling Point (BP)	230.00 F		175.00 F	
24	Flammable Combustible Liquids Points		9		9
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
26	8. Volatility (Table A-8) Vapor Pressure (VP)	15.00 mmHg	2	Not Listed	0
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		46		43
28	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	POLYURETHANE			MIL-L-81352, LACQUER, ACRYLIC		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010012853035			8010009357062		
6	E. MSDS, Cage Number	BBJXBD, 33461			BBFXTTP, 12904		
7	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			TOLUENE (15.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		31	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	67.00 F			35.00 F		
23	B. Boiling Point (BP)	260.00 F			176.00 F		
24	Flammable Combustible Liquids Points		9			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		No PPE Requirements Available	0	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		22.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
28	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010009356609		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBPGBV, OFTT5		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			Not Listed		
㉓	B. Boiling Point (BP)	260.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			53	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010006800144		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			30.00 F		
㉓	B. Boiling Point (BP)	260.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			46	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		COMP A, 1-COAT, 595B 24052 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013540968	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBRKNB, 33461	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		DIBUTYLTIN DILAURATE (0.10%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.10 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		19 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		45.00 F	
㉓	B. Boiling Point (BP)	260.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		35
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		COMP B, 1-COAT, 595B 57185 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013540968	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBRKNC, 33461	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		METHYL ISOBUTYL KETONE (40.68%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	50.00 ppm	6
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		26 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		45.00 F	
㉓	B. Boiling Point (BP)	260.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	16.00 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		44
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		TT-P-2756, 37038, 1-COAT PC 03BK098	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013408713	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBQGWF, 33461	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		2-4 PENTANEDIONE (5.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	20.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	12
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		23 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		45.00 F	
㉓	B. Boiling Point (BP)	260.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	6.90 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		40
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013408713	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBQGWG, 33461	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.05 ppm	7
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		21 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		76.00 F	
㉓	B. Boiling Point (BP)	260.00 F		260.00 F	
㉔	Flammable Combustible Liquids Points		9		8
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		36
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010013323737		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			Not Listed		
㉓	B. Boiling Point (BP)	260.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			40	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		ECO-SURE BROWN 30117 (674-394) P/N 672C894	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013323739	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBTGMC, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		AROMATIC 150 (3.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		Not Listed	
㉓	B. Boiling Point (BP)	260.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		9		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		41
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		ID7329T106, 340 VOC GRAY TOP COAT 37038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010012938260	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBHXIX, 98795	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		PROPRIETARY INFORMATION	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.00	0
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		34.00 F	
㉓	B. Boiling Point (BP)	260.00 F		172.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		38
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010012938260		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			26.00 F		
㉓	B. Boiling Point (BP)	260.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			60	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	POLYURETHANE			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010013303435		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			80.00 F		
㉓	B. Boiling Point (BP)	260.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			42	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010013303435		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			89.00 F		
㉓	B. Boiling Point (BP)	260.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010005305326		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			23.00 F		
㉓	B. Boiling Point (BP)	260.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			42	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		HEAT RESISTING EN-TT-E-496 A 14391	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010002972012	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBHMMC, 1J302	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		MINERAL SPIRITS (52.91%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	500.00 ppm	4
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		14 III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		103.00 F	
㉓	B. Boiling Point (BP)	260.00 F		307.00 F	
㉔	Flammable Combustible Liquids Points		9		7
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	4.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		29
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010008785761		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			67.00 F		
㉓	B. Boiling Point (BP)	260.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010002982304		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			102.00 F		
㉓	B. Boiling Point (BP)	260.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			41	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010005273200	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBQWBV, 61196	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		SILICA, CRYSTALLINE (1.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.10 mg/m ³	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		24.00 F	
㉓	B. Boiling Point (BP)	260.00 F		139.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		50
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010010366344		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			56.00 F		
㉓	B. Boiling Point (BP)	260.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		ID 7329T107 340 VOC BLACK TOPCOAT 17038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010012936181	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBHXKL, 98795	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		METHYL N-AMYL KETONE (20.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		19 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		26.00 F	
㉓	B. Boiling Point (BP)	260.00 F		172.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	2.10 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		36
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
1	1. Information Needed				
2	A. Candidate Material/Product Name	POLYURETHANE		ID 0320T136 HS HARDENER MIL-C-85285	
3	B. Located on AUL?	No		No	
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
5	D. National Stock Number (NSN), if any	8010012853035		8010012936181	
6	E. MSDS, Cage Number	BBJXBD, 33461		BBHXKM, 98795	
7	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		METHYL ETHYL KETONE (20.00%)	
8	2. Hazard Severity Code (HSC) Element				
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	200.00 ppm	4
10	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
11	C. Environmental Impact Attributes				
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
14	(3) Federal/State Permits	Yes	6	Yes	6
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	5000.00 lbs	2
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
17	(6) Total Environmental Impact Attributes				
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		28 II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
22	A. Flash Point (FP)	67.00 F		26.00 F	
23	B. Boiling Point (BP)	260.00 F		172.00 F	
24	Flammable Combustible Liquids Points		9		9
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
26	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	71.20 mmHg	8
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		52
28	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		ECO-SURE YELLOW 23538 (674-234) P/N 672C834	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013323746	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBTGMG, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		AROMATIC 150 (2.80%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		Not Listed	
㉓	B. Boiling Point (BP)	260.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		9		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		41
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010013323745		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			Not Listed		
㉓	B. Boiling Point (BP)	260.00 F			-44.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			49	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
1	1. Information Needed				
2	A. Candidate Material/Product Name	POLYURETHANE		COMP A MIL-P-233770 TY 1 CL C	
3	B. Located on AUL?	No		No	
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
5	D. National Stock Number (NSN), if any	8010012853035		801002Y403GK1	
6	E. MSDS, Cage Number	BBJXBD, 33461		BB02Y0, 33461	
7	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		ETHYL BENZENE (LOWER VP) (1.00%)	
8	2. Hazard Severity Code (HSC) Element				
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	100.00 ppm	5
10	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
11	C. Environmental Impact Attributes				
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
14	(3) Federal/State Permits	Yes	6	Yes	6
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	1000.00 lbs	4
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
17	(6) Total Environmental Impact Attributes				
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		31 I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
22	A. Flash Point (FP)	67.00 F		46.00 F	
23	B. Boiling Point (BP)	260.00 F		213.00 F	
24	Flammable Combustible Liquids Points		9		9
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory Protection	5
26	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	7.10 mmHg	1
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		46
28	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			72.00 F		
㉓	B. Boiling Point (BP)	260.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			43	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		MIL-P-23377F EPOXY TY 1 CL 2 513X419	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010013162552	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBVYKT, 85570	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		STRONTIUM CHROMATE (TLV=0.0005) (25.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.05 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	10.00 lbs	8
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		43 I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		61.00 F	
㉓	B. Boiling Point (BP)	260.00 F		175.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	0.00 mmHg	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		59
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010012853035			8010013162552		
⑥	E. MSDS, Cage Number	BBJXBD, 33461			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	67.00 F			51.00 F		
㉓	B. Boiling Point (BP)	260.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34			54	
㉘	10. Material Selection Recommendation	POLYURETHANE					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE		SUPER DESOTANE 828X310, BLACK 37038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010012853035		8010004825671	
⑥	E. MSDS, Cage Number	BBJXBD, 33461		BBFBBD, 62758	
⑦	F. Specific Chemical Constituent Analyzed	METHYL N-AMYL KETONE (5.00%)		AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	5	0.10 mg/m ³	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		19 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	67.00 F		22.00 F	
㉓	B. Boiling Point (BP)	260.00 F		175.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	2.10 mmHg	1	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		34		43
㉘	10. Material Selection Recommendation	POLYURETHANE			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010009357062		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBFXTP, 12904		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			35.00 F		
㉓	B. Boiling Point (BP)	175.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010009356609		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			Not Listed		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			53	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010006800144		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			30.00 F		
㉓	B. Boiling Point (BP)	175.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			46	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013540968		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			45.00 F		
㉓	B. Boiling Point (BP)	175.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	PIGMENTED POLYMER			COMP B, 1-COAT, 595B 57185 PC03GN246		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013540968		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			45.00 F		
㉓	B. Boiling Point (BP)	175.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			44	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013408713		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			45.00 F		
㉓	B. Boiling Point (BP)	175.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013408713		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			76.00 F		
㉓	B. Boiling Point (BP)	175.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013323737		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			Not Listed		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013323739		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			Not Listed		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010012938260		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			34.00 F		
㉓	B. Boiling Point (BP)	175.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			38	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010012938260		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			26.00 F		
㉓	B. Boiling Point (BP)	175.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			60	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013303435		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			80.00 F		
㉓	B. Boiling Point (BP)	175.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			42	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013303435		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			89.00 F		
㉓	B. Boiling Point (BP)	175.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010005305326		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			23.00 F		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			42	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010002972012		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			103.00 F		
㉓	B. Boiling Point (BP)	175.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010008785761		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			67.00 F		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010002982304		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			102.00 F		
㉓	B. Boiling Point (BP)	175.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010005273200		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			24.00 F		
㉓	B. Boiling Point (BP)	175.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			50	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010010366344		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			56.00 F		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010012936181		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			26.00 F		
㉓	B. Boiling Point (BP)	175.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010012936181		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			26.00 F		
㉓	B. Boiling Point (BP)	175.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			52	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013323746		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			Not Listed		
㉓	B. Boiling Point (BP)	175.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013323745		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m ³	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			Not Listed		
㉓	B. Boiling Point (BP)	175.00 F			-44.00 F		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			49	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			46.00 F		
㉓	B. Boiling Point (BP)	175.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			46	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			72.00 F		
㉓	B. Boiling Point (BP)	175.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013162552		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			61.00 F		
㉓	B. Boiling Point (BP)	175.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			59	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010013162552		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			51.00 F		
㉓	B. Boiling Point (BP)	175.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			54	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	PIGMENTED POLYMER			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010005152211			8010004825671		
⑥	E. MSDS, Cage Number	BBJQRY, Z0022			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	ZINC CHROMATE (24.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	4		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		15	III		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			5			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	24.00 F			22.00 F		
㉓	B. Boiling Point (BP)	175.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	9		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	77.00 mmHg	8		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	PIGMENTED POLYMER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010009357062		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBFXTF, 12904		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			35.00 F		
㉓	B. Boiling Point (BP)	0.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			43	
㉘	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010009356609		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			53	
㉘	10. Material Selection Recommendation	SO-SURE WHITE 17875 (144-170)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010006800144		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			30.00 F		
㉓	B. Boiling Point (BP)	0.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			46	
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	SO-SURE LACQUER			COMP A, 1-COAT, 595B 24052 PC03GN246		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013540968		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			DIBUTYL TIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			45.00 F		
㉓	B. Boiling Point (BP)	0.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013540968		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			45.00 F		
㉓	B. Boiling Point (BP)	0.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			44	
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE LACQUER		TT-P-2756, 37038, 1-COAT PC 03BK098	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010001412952		8010013408713	
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5		BBQGWF, 33461	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)		2-4 PENTANEDIONE (5.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	20.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	12
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40 I		23 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	20.00 F		45.00 F	
㉓	B. Boiling Point (BP)	0.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		10		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	6.90 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58		40
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013408713		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			76.00 F		
㉓	B. Boiling Point (BP)	0.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		10			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	SO-SURE LACQUER			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013323737		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE LACQUER		ECO-SURE BROWN 30117 (674-394) P/N 672C894	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010001412952		8010013323739	
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5		BBTGMC, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)		AROMATIC 150 (3.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	20.00 F		Not Listed	
㉓	B. Boiling Point (BP)	0.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		10		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58		41
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed	INFORMATION	Pts Code	INFORMATION	Pts Code
②	A. Candidate Material/Product Name	SO-SURE LACQUER		ID7329T106, 340 VOC GRAY TOP COAT 37038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010001412952		8010012938260	
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5		BBHXIX, 98795	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)		PROPRIETARY INFORMATION	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6	0.00	0
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40 I		22 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	20.00 F		34.00 F	
㉓	B. Boiling Point (BP)	0.00 F		172.00 F	
㉔	Flammable Combustible Liquids Points		10		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58		38
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	SO-SURE LACQUER			ID 0320T136 HS HARDENER MIL-C-85285		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010012938260		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			60	
㉘	10. Material Selection Recommendation	SO-SURE LACQUER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013303435		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			80.00 F		
㉓	B. Boiling Point (BP)	0.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		10			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013303435		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			89.00 F		
㉓	B. Boiling Point (BP)	0.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		10			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	SO-SURE LACQUER			TT-L-20A WHITE 37875		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010005305326		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			23.00 F		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010002972012		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			103.00 F		
㉓	B. Boiling Point (BP)	0.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		10			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE LACQUER			A-58A ENAMEL (TT-E-516A)		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010001412952			8010008785761		
6	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBFTMQ, 71191		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			PROPRIETARY INFORMATION		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.00	0	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		22	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	20.00 F			67.00 F		
23	B. Boiling Point (BP)	0.00 F			Not Listed		
24	Flammable Combustible Liquids Points		10			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			27	
28	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010002982304		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			102.00 F		
㉓	B. Boiling Point (BP)	0.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		10			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010005273200		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			24.00 F		
㉓	B. Boiling Point (BP)	0.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			50	
㉘	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010010366344		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			56.00 F		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	SO-SURE LACQUER			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010012936181		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010012936181		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			52	
㉘	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013323746		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013323745		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			-44.00 F		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			49	
㉘	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			46.00 F		
㉓	B. Boiling Point (BP)	0.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			46	
㉘	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			72.00 F		
㉓	B. Boiling Point (BP)	0.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013162552		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			61.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			59	
㉘	10. Material Selection Recommendation	SO-SURE LACQUER					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE LACQUER			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010013162552		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			51.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			54	
㉘	10. Material Selection Recommendation	HIGH SOLIDS PRIMER ACTIVATOR 910X942					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	SO-SURE LACQUER			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001412952			8010004825671		
⑥	E. MSDS, Cage Number	BBHBSB, 0FTT5			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (30.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		40	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	20.00 F			22.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory Protection	5		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		58			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P		MIL-L-81352, LACQUER, ACRYLIC	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010009357156		8010009357062	
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5		BBFXTF, 12904	
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)		TOLUENE (15.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	1000.00 lbs	4
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37 I		31 I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	-156.00 F		35.00 F	
㉓	B. Boiling Point (BP)	Not Listed		176.00 F	
㉔	Flammable Combustible Liquids Points		0		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	No PPE Requirements Available	0
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7	22.00 mmHg	3
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51		43
㉘	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010009356609		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			53	
㉘	10. Material Selection Recommendation	SO-SURE BLUE 35109 (54-350) P					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010006800144		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			30.00 F		
㉓	B. Boiling Point (BP)	Not Listed			118.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			46	
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013540968		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013540968		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			44	
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013408713		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013408713		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			76.00 F		
㉓	B. Boiling Point (BP)	Not Listed			260.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010009357156			8010013323737		
6	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQSPX, 0FTT5		
7	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			AROMATIC 150 (2.92%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		5.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	-156.00 F			Not Listed		
23	B. Boiling Point (BP)	Not Listed			Not Listed		
24	Flammable Combustible Liquids Points		0			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		60.00 mmHg	6	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			40	
28	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P		ECO-SURE BROWN 30117 (674-394) P/N 672C894	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010009357156		8010013323739	
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5		BBTGMC, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)		AROMATIC 150 (3.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	-156.00 F		Not Listed	
㉓	B. Boiling Point (BP)	Not Listed		Not Listed	
㉔	Flammable Combustible Liquids Points		0		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51		41
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010012938260		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			34.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			38	
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010012938260		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			60	
㉘	10. Material Selection Recommendation	SO-SURE BLUE 35109 (54-350) P					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013303435		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			80.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013303435		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			89.00 F		
㉓	B. Boiling Point (BP)	Not Listed			300.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010005305326		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			23.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			HEAT RESISTING EN-TT-E-496 A 14391		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010009357156			8010002972012		
6	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBHMMC, 1J302		
7	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			MINERAL SPIRITS (52.91%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		500.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		14	III
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	-156.00 F			103.00 F		
23	B. Boiling Point (BP)	Not Listed			307.00 F		
24	Flammable Combustible Liquids Points		0			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		4.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			29	
28	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010008785761		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			67.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010002982304		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			102.00 F		
㉓	B. Boiling Point (BP)	Not Listed			302.00 F		
㉔	Flammable Combustible Liquids Points		0			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010005273200		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			24.00 F		
㉓	B. Boiling Point (BP)	Not Listed			139.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			50	
㉘	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010010366344		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			56.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010012936181		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010012936181		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			52	
㉘	10. Material Selection Recommendation	SO-SURE BLUE 35109 (54-350) P					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013323746		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013323745		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			-44.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			49	
㉘	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			46.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			46	
㉘	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			72.00 F		
㉓	B. Boiling Point (BP)	Not Listed			211.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013162552		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			61.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			59	
㉘	10. Material Selection Recommendation	SO-SURE BLUE 35109 (54-350) P					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010013162552		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			51.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			54	
㉘	10. Material Selection Recommendation	SO-SURE BLUE 35109 (54-350) P					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE BLUE 35109 (54-350) P			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010009357156			8010004825671		
⑥	E. MSDS, Cage Number	BBPRLX, 0FTT5			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	ISOBUTYL ALCOHOL (1.85%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	5000.00 lbs	2		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			22.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		51			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
(1)	1. Information Needed	INFORMATION	Pts	Code	INFORMATION	Pts	Code
(2)	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			MIL-L-81352, LACQUER, ACRYLIC		
(3)	B. Located on AUL?	No			No		
(4)	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
(5)	D. National Stock Number (NSN), if any	8010008515525			8010009357062		
(6)	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBFXTF, 12904		
(7)	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			TOLUENE (15.00%)		
(8)	2. Hazard Severity Code (HSC) Element						
(9)	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
(10)	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
(11)	C. Environmental Impact Attributes						
(12)	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
(13)	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
(14)	(3) Federal/State Permits	Yes	6		Yes	6	
(15)	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		1000.00 lbs	4	
(16)	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
(17)	(6) Total Environmental Impact Attributes						
(18)	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		31	I
(19)	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
(20)	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
(21)	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
(22)	A. Flash Point (FP)	-156.00 F			35.00 F		
(23)	B. Boiling Point (BP)	Not Listed			176.00 F		
(24)	Flammable Combustible Liquids Points		0			9	
(25)	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
(26)	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		22.00 mmHg	3	
(27)	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			43	
(28)	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010009356609		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			53	
㉘	10. Material Selection Recommendation	SO-SURE WHITE 17875 (144-170)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010006800144		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m ³	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			30.00 F		
㉓	B. Boiling Point (BP)	Not Listed			118.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			46	
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013540968		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013540968		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			44	
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013408713		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			45.00 F		
㉓	B. Boiling Point (BP)	Not Listed			230.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013408713		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQGWW, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			76.00 F		
㉓	B. Boiling Point (BP)	Not Listed			260.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013323737		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010008515525			8010013323739		
6	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBTGMC, 0FTT5		
7	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			AROMATIC 150 (3.20%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	-156.00 F			Not Listed		
23	B. Boiling Point (BP)	Not Listed			Not Listed		
24	Flammable Combustible Liquids Points		0			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		70.00 mmHg	7	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			41	
28	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010012938260		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			34.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			38	
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ID 0320T136 HS HARDENER MIL-C-85285		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010008515525			8010012938260		
6	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBHXKY, 98795		
7	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			METHYL ETHYL KETONE (20.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		200.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		36	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	-156.00 F			26.00 F		
23	B. Boiling Point (BP)	Not Listed			172.00 F		
24	Flammable Combustible Liquids Points		0			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		71.20 mmHg	8	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			60	
28	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013303435		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			80.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013303435		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			89.00 F		
㉓	B. Boiling Point (BP)	Not Listed			300.00 F		
㉔	Flammable Combustible Liquids Points		0			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL		TT-L-20A WHITE 37875	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010008515525		8010005305326	
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5		BBPPBH, 00297	
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)		METHYL ISOBUTYL KETONE (10.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	12
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53 I		33 I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	-156.00 F		23.00 F	
㉓	B. Boiling Point (BP)	Not Listed		Not Listed	
㉔	Flammable Combustible Liquids Points		0		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7	16.00 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67		42
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010002972012		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			103.00 F		
㉓	B. Boiling Point (BP)	Not Listed			307.00 F		
㉔	Flammable Combustible Liquids Points		0			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010008785761		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			67.00 F		
㉓	B. Boiling Point (BP)	Not Listed			Not Listed		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010008515525			8010002982304		
6	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBJLGL, 61196		
7	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			LEAD CHROMATE (1.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	-156.00 F			102.00 F		
23	B. Boiling Point (BP)	Not Listed			302.00 F		
24	Flammable Combustible Liquids Points		0			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			41	
28	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010005273200		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			24.00 F		
㉓	B. Boiling Point (BP)	Not Listed			139.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			50	
㉘	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
1	1. Information Needed				
2	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL		TT-E-489H LOW VOC (15182 BLUE)	
3	B. Located on AUL?	No		No	
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
5	D. National Stock Number (NSN), if any	8010008515525		8010010366344	
6	E. MSDS, Cage Number	BBJNBG, 0FTT5		BBVZJC, 00297	
7	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)		METHYL N-AMYL KETONE (10.00%)	
8	2. Hazard Severity Code (HSC) Element				
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	50.00 ppm	5
10	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	12
11	C. Environmental Impact Attributes				
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
14	(3) Federal/State Permits	Yes	6	Yes	6
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8	Not On List	0
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10	Not On List	0
17	(6) Total Environmental Impact Attributes				
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53 I		23 II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
22	A. Flash Point (FP)	-156.00 F		56.00 F	
23	B. Boiling Point (BP)	Not Listed		Not Listed	
24	Flammable Combustible Liquids Points		0		0
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
26	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7	2.10 mmHg	1
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67		31
28	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010012936181		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010012936181		
⑥	E. MSDS, Cage Number	BBJN8G, 0FTT5			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			26.00 F		
㉓	B. Boiling Point (BP)	Not Listed			172.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			52	
㉘	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL		ECO-SURE YELLOW 23538 (674-234) P/N 672C834	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010008515525		8010013323746	
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5		BBTGMG, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)		AROMATIC 150 (2.80%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	-156.00 F		Not Listed	
㉓	B. Boiling Point (BP)	Not Listed		Not Listed	
㉔	Flammable Combustible Liquids Points		0		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67		41
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			A-4300-33538 AEROSOL FLAT YELLOW		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013323745		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBSGJB, 65860		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			XYLENE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m ³	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			Not Listed		
㉓	B. Boiling Point (BP)	Not Listed			-44.00 F		
㉔	Flammable Combustible Liquids Points		0			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		6.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			49	
㉘	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			46.00 F		
㉓	B. Boiling Point (BP)	Not Listed			213.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			46	
㉘	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			72.00 F		
㉓	B. Boiling Point (BP)	Not Listed			211.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013162552		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			61.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			59	
㉘	10. Material Selection Recommendation	MIL-P-23377F EPOXY TY 1 CL 2 513X419					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010013162552		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			51.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			54	
㉘	10. Material Selection Recommendation	HIGH SOLIDS PRIMER ACTIVATOR 910X942					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	SO-SURE YELLOW 23530 (114-230)G ENAMEL			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010008515525			8010004825671		
⑥	E. MSDS, Cage Number	BBJNBG, 0FTT5			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	LEAD (1.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	10.00 lbs	8		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	0.60 tons/yr	10		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		53	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	-156.00 F			22.00 F		
㉓	B. Boiling Point (BP)	Not Listed			175.00 F		
㉔	Flammable Combustible Liquids Points		0			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	70.00 mmHg	7		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		67			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			MIL-L-81352, LACQUER, ACRYLIC		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000B180034			8010009357062		
6	E. MSDS, Cage Number	BBKPM8, 08882			BBFXT8, 12904		
7	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			TOLUENE (15.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		31	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	0.00 F			35.00 F		
23	B. Boiling Point (BP)	0.00 F			176.00 F		
24	Flammable Combustible Liquids Points		10			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		22.00 mmHg	3	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			43	
28	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010009356609		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			53	
㉘	10. Material Selection Recommendation	SO-SURE WHITE 17875 (144-170)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			786-516, TT-L-32A, AM-1 TY II. BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010006800144		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			30.00 F		
㉓	B. Boiling Point (BP)	0.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			46	
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013540968		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			45.00 F		
㉓	B. Boiling Point (BP)	0.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS		COMP B, 1-COAT, 595B 57185 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000B180034		8010013540968	
⑥	E. MSDS, Cage Number	BBKPMB, 08882		BBRKNC, 33461	
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)		METHYL ISOBUTYL KETONE (40.68%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6	50.00 ppm	6
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46 I		26 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		45.00 F	
㉓	B. Boiling Point (BP)	0.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		10		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12	16.00 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75		44
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013408713		
⑥	E. MSDS, Cage Number	BBKPM8, 08882			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			45.00 F		
㉓	B. Boiling Point (BP)	0.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013408713		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			76.00 F		
㉓	B. Boiling Point (BP)	0.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		10			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013323737		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013323739		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			41	
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ID7329T106, 340 VOC GRAY TOP COAT 37038		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000B180034			8010012938260		
6	E. MSDS, Cage Number	BBKPMB, 08882			BBHXKX, 98795		
7	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			PROPRIETARY INFORMATION		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.00	0	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		22	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	0.00 F			34.00 F		
23	B. Boiling Point (BP)	0.00 F			172.00 F		
24	Flammable Combustible Liquids Points		10			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			38	
28	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010012938260		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			60	
㉘	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013303435		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			80.00 F		
㉓	B. Boiling Point (BP)	0.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		10			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS		DS 340 HS C/S PC 930G039	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	801000B180034		8010013303435	
⑥	E. MSDS, Cage Number	BBKPMB, 08882		BBQSPB, 85570	
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)		METHYL N-AMYL KETONE (15.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	0.00 F		89.00 F	
㉓	B. Boiling Point (BP)	0.00 F		300.00 F	
㉔	Flammable Combustible Liquids Points		10		8
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12	2.10 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75		43
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010005305326		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			23.00 F		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010002972012		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			103.00 F		
㉓	B. Boiling Point (BP)	0.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		10			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010008785761		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			67.00 F		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			24	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010002982304		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			102.00 F		
㉓	B. Boiling Point (BP)	0.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		10			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010005273200		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			24.00 F		
㉓	B. Boiling Point (BP)	0.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			50	
㉘	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010010366344		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			56.00 F		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010012936181		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010012936181		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			26.00 F		
㉓	B. Boiling Point (BP)	0.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			52	
㉘	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013323746		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			Not Listed		
㉓	B. Boiling Point (BP)	0.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		10			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			A-4300-33538 AEROSOL FLAT YELLOW		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	801000B180034			8010013323745		
6	E. MSDS, Cage Number	BBKPMB, 08882			BBSGJB, 65860		
7	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			XYLENE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	0.00 F			Not Listed		
23	B. Boiling Point (BP)	0.00 F			-44.00 F		
24	Flammable Combustible Liquids Points		10			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		6.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			49	
28	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			46.00 F		
㉓	B. Boiling Point (BP)	0.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			46	
㉘	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			72.00 F		
㉓	B. Boiling Point (BP)	0.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013162552		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			61.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			59	
㉘	10. Material Selection Recommendation	MIL-P-23377F EPOXY TY 1 CL 2 513X419					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010013162552		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			51.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			54	
㉘	10. Material Selection Recommendation	HIGH SOLIDS PRIMER ACTIVATOR 910X942					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	HARD HAT FLOURESCENT TOPCOATS			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	801000B180034			8010004825671		
⑥	E. MSDS, Cage Number	BBKPMB, 08882			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	HEXANE (30.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	50.00 ppm	6		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		46	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	0.00 F			22.00 F		
㉓	B. Boiling Point (BP)	0.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		10			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	137.00 mmHg	12		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		75			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010009357062		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBFXT, 12904		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			35.00 F		
㉓	B. Boiling Point (BP)	231.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			43	
㉘	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010009356609		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			Not Listed		
㉓	B. Boiling Point (BP)	231.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			53	
㉘	10. Material Selection Recommendation	POLYURETHANE CURING SOLUTION					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010006800144		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			30.00 F		
㉓	B. Boiling Point (BP)	231.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			46	
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PAKOUT			PAINT/STENCIL/PAKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013540968		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			DIBUTYL TIN DILAUATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			45.00 F		
㉓	B. Boiling Point (BP)	231.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION		COMP B, 1-COAT, 595B 57185 PC03GN246	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	4953012532228		8010013540968	
⑥	E. MSDS, Cage Number	BBCMAC, 06367		BBRKNC, 33461	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)		METHYL ISOBUTYL KETONE (40.68%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7	50.00 ppm	6
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	4
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33 I		26 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	44.00 F		45.00 F	
㉓	B. Boiling Point (BP)	231.00 F		230.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	16.00 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52		44
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013408713		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			45.00 F		
㉓	B. Boiling Point (BP)	231.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013408713		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			76.00 F		
㉓	B. Boiling Point (BP)	231.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013323737		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			AROMATIC 100 (5.83%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			Not Listed		
㉓	B. Boiling Point (BP)	231.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013323739		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			Not Listed		
㉓	B. Boiling Point (BP)	231.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			41	
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010012938260		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			34.00 F		
㉓	B. Boiling Point (BP)	231.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			38	
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010012938260		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			26.00 F		
㉓	B. Boiling Point (BP)	231.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			60	
㉘	10. Material Selection Recommendation	POLYURETHANE CURING SOLUTION					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013303435		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			80.00 F		
㉓	B. Boiling Point (BP)	231.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013303435		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			89.00 F		
㉓	B. Boiling Point (BP)	231.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010005305326		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			23.00 F		
㉓	B. Boiling Point (BP)	231.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010002972012		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			103.00 F		
㉓	B. Boiling Point (BP)	231.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010008785761		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			67.00 F		
㉓	B. Boiling Point (BP)	231.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	4953012532228			8010002982304		
6	E. MSDS, Cage Number	BBCMAC, 06367			BBJLGL, 61196		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			LEAD CHROMATE (1.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.05 mg/m3	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List		
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	44.00 F			102.00 F		
23	B. Boiling Point (BP)	231.00 F			302.00 F		
24	Flammable Combustible Liquids Points		9			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			41	
28	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	4953012532228			8010005273200		
6	E. MSDS, Cage Number	BBCMAC, 06367			BBQWBV, 61196		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			SILICA, CRYSTALLINE (1.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.10 mg/m3	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	44.00 F			24.00 F		
23	B. Boiling Point (BP)	231.00 F			139.00 F		
24	Flammable Combustible Liquids Points		9			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		70.00 mmHg	7	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			50	
28	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			TT-E-489H LOW VOC (15182 BLUE)		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	4953012532228			8010010366344		
6	E. MSDS, Cage Number	BBCMAC, 06367			BBVZJC, 00297		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL N-AMYL KETONE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		23	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	44.00 F			56.00 F		
23	B. Boiling Point (BP)	231.00 F			Not Listed		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			31	
28	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010012936181		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			26.00 F		
㉓	B. Boiling Point (BP)	231.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010012936181		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			26.00 F		
㉓	B. Boiling Point (BP)	231.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			52	
㉘	10. Material Selection Recommendation	POLYURETHANE CURING SOLUTION					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION		ECO-SURE YELLOW 23538 (674-234) P/N 672C834	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	4953012532228		8010013323746	
⑥	E. MSDS, Cage Number	BBCMAC, 06367		BBTGMG, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)		AROMATIC 150 (2.80%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	44.00 F		Not Listed	
㉓	B. Boiling Point (BP)	231.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		9		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52		41
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			A-4300-33538 AEROSOL FLAT YELLOW		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	4953012532228			8010013323745		
6	E. MSDS, Cage Number	BBCMAC, 06367			BBSGJB, 65860		
7	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			XYLENE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	44.00 F			Not Listed		
23	B. Boiling Point (BP)	231.00 F			-44.00 F		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		6.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			49	
28	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			46.00 F		
㉓	B. Boiling Point (BP)	231.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			46	
㉘	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION		COMP B, MIL-P-23377G, TY 1 CL C	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	4953012532228		801002Y403GK1	
⑥	E. MSDS, Cage Number	BBCMAC, 06367		BB0Y04, 33461	
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)		SEC-BUTYL ALCOHOL (25.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7	100.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33 I		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	44.00 F		72.00 F	
㉓	B. Boiling Point (BP)	231.00 F		211.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory Protection	5
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3	12.50 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52		43
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013162552		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			61.00 F		
㉓	B. Boiling Point (BP)	231.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			59	
㉘	10. Material Selection Recommendation	POLYURETHANE CURING SOLUTION					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010013162552		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			51.00 F		
㉓	B. Boiling Point (BP)	231.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			54	
㉘	10. Material Selection Recommendation	POLYURETHANE CURING SOLUTION					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	POLYURETHANE CURING SOLUTION			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	4953012532228			8010004825671		
⑥	E. MSDS, Cage Number	BBCMAC, 06367			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	TOLUENE (60.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	100.00 ppm	7		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1000.00 lbs	4		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		33	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	44.00 F			22.00 F		
㉓	B. Boiling Point (BP)	231.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	22.00 mmHg	3		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		52			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010009357062		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBFXTF, 12904		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			35.00 F		
㉓	B. Boiling Point (BP)	279.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010009356609		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			Not Listed		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			53	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			786-516, TT-L-32A, AM-1 TY II BLUE 1510		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010006800144		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBFLDP, 09868		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			ISOBUTYL ALCOHOL (8.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		29	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			30.00 F		
㉓	B. Boiling Point (BP)	279.00 F			118.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		9.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			46	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013540968		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			45.00 F		
㉓	B. Boiling Point (BP)	279.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013540968		
⑥	E. MSDS, Cage Number	BBPKOX, 77672			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			45.00 F		
㉓	B. Boiling Point (BP)	279.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			44	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013408713		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			45.00 F		
㉓	B. Boiling Point (BP)	279.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013408713		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBQGWWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			76.00 F		
㉓	B. Boiling Point (BP)	279.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		7			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL		ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010010421426		8010013323737	
⑥	E. MSDS, Cage Number	BBPKXX, 77672		BBQSPX, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)		AROMATIC 150 (2.92%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	108.00 F		Not Listed	
㉓	B. Boiling Point (BP)	279.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		7		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0	60.00 mmHg	6
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41		40
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013323739		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBTGMC, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			AROMATIC 150 (3.20%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			Not Listed		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010012938260		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			34.00 F		
㉓	B. Boiling Point (BP)	279.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			38	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010012938260		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			26.00 F		
㉓	B. Boiling Point (BP)	279.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			60	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013303435		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			80.00 F		
㉓	B. Boiling Point (BP)	279.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		7			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			42	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013303435		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			89.00 F		
㉓	B. Boiling Point (BP)	279.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		7			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010005305326		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			23.00 F		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			42	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010002972012		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			103.00 F		
㉓	B. Boiling Point (BP)	279.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010008785761		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			67.00 F		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010002982304		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			102.00 F		
㉓	B. Boiling Point (BP)	279.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		7			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PAKOUT			PAINT/STENCIL/PAKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010005273200		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			24.00 F		
㉓	B. Boiling Point (BP)	279.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			50	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010010366344		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			56.00 F		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010010421426			8010012936181		
6	E. MSDS, Cage Number	BBPKXX, 77672			BBHXKL, 98795		
7	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			METHYL N-AMYL KETONE (20.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	108.00 F			26.00 F		
23	B. Boiling Point (BP)	279.00 F			172.00 F		
24	Flammable Combustible Liquids Points		7			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		2.10 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			36	
28	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL		ID 0320T136 HS HARDENER MIL-C-85285	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010010421426		8010012936181	
⑥	E. MSDS, Cage Number	BBPKXX, 77672		BBHXKM, 98795	
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)		METHYL ETHYL KETONE (20.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	200.00 ppm	4
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		28 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	108.00 F		26.00 F	
㉓	B. Boiling Point (BP)	279.00 F		172.00 F	
㉔	Flammable Combustible Liquids Points		7		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0	71.20 mmHg	8
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41		52
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
②	A. Candidate Material/Product Name						
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013323746		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			Not Listed		
㉓	B. Boiling Point (BP)	279.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		7			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			41	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			A-4300-33538 AEROSOL FLAT YELLOW		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010010421426			8010013323745		
6	E. MSDS, Cage Number	BBPKXX, 77672			BBSGJB, 65860		
7	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			XYLENE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	108.00 F			Not Listed		
23	B. Boiling Point (BP)	279.00 F			-44.00 F		
24	Flammable Combustible Liquids Points		7			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		6.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			49	
28	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			46.00 F		
㉓	B. Boiling Point (BP)	279.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			46	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL		COMP B, MIL-P-23377G, TY 1 CL C	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010010421426		801002Y403GK1	
⑥	E. MSDS, Cage Number	BBPKXX, 77672		BB0Y04, 33461	
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)		SEC-BUTYL ALCOHOL (25.00%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5	100.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	108.00 F		72.00 F	
㉓	B. Boiling Point (BP)	279.00 F		211.00 F	
㉔	Flammable Combustible Liquids Points		7		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory Protection	5
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0	12.50 mmHg	2
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41		43
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013162552		
⑥	E. MSDS, Cage Number	BBPIXX, 77672			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			61.00 F		
㉓	B. Boiling Point (BP)	279.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			59	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010013162552		
⑥	E. MSDS, Cage Number	BBPIXX, 77672			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			51.00 F		
㉓	B. Boiling Point (BP)	279.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			54	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL			SUPER DESOTHAINE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010010421426			8010004825671		
⑥	E. MSDS, Cage Number	BBPKXX, 77672			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	LEAD CHROMATE YELLOW (5.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.05 mg/m3	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	108.00 F			22.00 F		
㉓	B. Boiling Point (BP)	279.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		7			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.00 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		41			43	
㉘	10. Material Selection Recommendation	TT-E-529F TY 1 #20117 BROWN AIR DRY ENAMEL					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010009357062		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBFXTF, 12904		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			35.00 F		
㉓	B. Boiling Point (BP)	180.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			43	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010009356609		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			Not Listed		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			53	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B		786-516, TT-L-32A, AM-1 TY II BLUE 1510	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010011068404		8010006800144	
⑥	E. MSDS, Cage Number	BBVRFX, 77672		BBFLDP, 09868	
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)		ISOBUTYL ALCOHOL (8.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	Not On List	0	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		29 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	40.00 F		30.00 F	
㉓	B. Boiling Point (BP)	180.00 F		118.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0	9.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43		46
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013540968		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			DIBUTYLTIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			45.00 F		
㉓	B. Boiling Point (BP)	180.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013540968		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			45.00 F		
㉓	B. Boiling Point (BP)	180.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			44	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013408713		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			45.00 F		
㉓	B. Boiling Point (BP)	180.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013408713		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			76.00 F		
㉓	B. Boiling Point (BP)	180.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013323737		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			Not Listed		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B		ECO-SURE BROWN 30117 (674-394) P/N 672C894	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010011068404		8010013323739	
⑥	E. MSDS, Cage Number	BBVRFX, 77672		BBTGMC, 0FTT5	
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)		AROMATIC 150 (3.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5	5.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	40.00 F		Not Listed	
㉓	B. Boiling Point (BP)	180.00 F		Not Listed	
㉔	Flammable Combustible Liquids Points		9		0
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0	70.00 mmHg	7
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43		41
㉘	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010012938260		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBHXKX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			34.00 F		
㉓	B. Boiling Point (BP)	180.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			38	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PAKOUT			PAINT/STENCIL/PAKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010012938260		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			26.00 F		
㉓	B. Boiling Point (BP)	180.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			60	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013303435		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			80.00 F		
㉓	B. Boiling Point (BP)	180.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013303435		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			89.00 F		
㉓	B. Boiling Point (BP)	180.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			43	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010005305326		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			23.00 F		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			HEAT RESISTING EN-TT-E-496 A 14391		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010011068404			8010002972012		
6	E. MSDS, Cage Number	BBVRFX, 77672			BBHMMC, 1J302		
7	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			MINERAL SPIRITS (52.91%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		500.00 ppm	4	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	4	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		14	III
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			5
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	40.00 F			103.00 F		
23	B. Boiling Point (BP)	180.00 F			307.00 F		
24	Flammable Combustible Liquids Points		9			7	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		4.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			29	
28	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010008785761		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			67.00 F		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010002982304		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			102.00 F		
㉓	B. Boiling Point (BP)	180.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010005273200		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			24.00 F		
㉓	B. Boiling Point (BP)	180.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			50	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010010366344		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			56.00 F		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010012936181		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			26.00 F		
㉓	B. Boiling Point (BP)	180.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010012936181		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			26.00 F		
㉓	B. Boiling Point (BP)	180.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			52	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013323746		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBTGMM, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			Not Listed		
㉓	B. Boiling Point (BP)	180.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			A-4300-33538 AEROSOL FLAT YELLOW		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PAKOUT			PAINT/STENCIL/PAKOUT		
5	D. National Stock Number (NSN), if any	8010011068404			8010013323745		
6	E. MSDS, Cage Number	BBVRFX, 77672			BBSGJB, 65860		
7	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			XYLENE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	40.00 F			Not Listed		
23	B. Boiling Point (BP)	180.00 F			-44.00 F		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		6.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			49	
28	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			COMP A MIL-P-233770 TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BB02Y0, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			ETHYL BENZENE (LOWER VP) (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			46.00 F		
㉓	B. Boiling Point (BP)	180.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		7.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			46	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			72.00 F		
㉓	B. Boiling Point (BP)	180.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			43	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010011068404			8010013162552		
⑥	E. MSDS, Cage Number	BBVRFX, 77672			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	Not On List	0		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		43	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	40.00 F			61.00 F		
㉓	B. Boiling Point (BP)	180.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			59	
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	EPOXY CATALYST COMP B			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010011068404			8010013162552		
6	E. MSDS, Cage Number	BBVRFX, 77672			BBVYKV, 85570		
7	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)			N-BUTYL ALCOHOL (5.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5		50.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Permanent,	16		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0		5000.00 lbs	2	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27	II		37	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			4			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	40.00 F			51.00 F		
23	B. Boiling Point (BP)	180.00 F			175.00 F		
24	Flammable Combustible Liquids Points		9			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0		5.50 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43			54	
28	10. Material Selection Recommendation	EPOXY CATALYST COMP B					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	EPOXY CATALYST COMP B		SUPER DESOTHANE 828X310, BLACK 37038	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010011068404		8010004825671	
⑥	E. MSDS, Cage Number	BBVRFX, 77672		BBFBBD, 62758	
⑦	F. Specific Chemical Constituent Analyzed	TRI (DIMETHYLAMINOMETHYL)		AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	10.00 ppm	5	0.10 mg/m3	5
⑩	B. Medical Effects (Table A-2d)	Permanent,	16	Permanent,	16
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	No	0	No	0
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	Not On List	0	Not On List	0
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		27 II		27 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk	D	2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		4		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	40.00 F		22.00 F	
㉓	B. Boiling Point (BP)	180.00 F		175.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	0.10 mmHg	0	Not Listed	0
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		43		43
㉘	10. Material Selection Recommendation	EPOXY CATALYST COMP B			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			MIL-L-81352, LACQUER, ACRYLIC		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010009357062		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBFXTX, 12904		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			TOLUENE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		31	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			35.00 F		
㉓	B. Boiling Point (BP)	285.00 F			176.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		No PPE Requirements Available	0	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		22.00 mmHg	3	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			43	
㉘	10. Material Selection Recommendation	MIL-L-81352, LACQUER, ACRYLIC					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			SO-SURE WHITE 17875 (144-170)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010009356609		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBPGBV, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			TOLUENE (6.85%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		39	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		65.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			53	
㉘	10. Material Selection Recommendation	CATALYST ALIPHATIC ISOCYANATE REACTANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B	
		INFORMATION	Pts Code	INFORMATION	Pts Code
①	1. Information Needed				
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT		786-516, TT-L-32A, AM-1 TY II BLUE 1510	
③	B. Located on AUL?	No		No	
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT		PAINT/STENCIL/PACKOUT	
⑤	D. National Stock Number (NSN), if any	8010001818277		8010006800144	
⑥	E. MSDS, Cage Number	BBMPYZ, 77672		BBFLDP, 09868	
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)		ISOBUTYL ALCOHOL (8.20%)	
⑧	2. Hazard Severity Code (HSC) Element				
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5	50.00 ppm	5
⑩	B. Medical Effects (Table A-2d)	Temporary	8	Temporary	8
⑪	C. Environmental Impact Attributes				
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8	Yes	8
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0	No	0
⑭	(3) Federal/State Permits	Yes	6	Yes	6
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10	5000.00 lbs	2
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0	Not On List	0
⑰	(6) Total Environmental Impact Attributes				
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37 I		29 II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		2.50 Hrs/wk	D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)		3		4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)				
㉒	A. Flash Point (FP)	45.00 F		30.00 F	
㉓	B. Boiling Point (BP)	285.00 F		118.00 F	
㉔	Flammable Combustible Liquids Points		9		9
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7	Respiratory, Eye, and Skin	7
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0	9.00 mmHg	1
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53		46
㉘	10. Material Selection Recommendation	786-516, TT-L-32A, AM-1 TY II BLUE 1510			

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			COMP A, 1-COAT, 595B 24052 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013540968		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBRKNB, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			DIBUTYL TIN DILAURATE (0.10%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	285.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			35	
㉘	10. Material Selection Recommendation	COMP A, 1-COAT, 595B 24052 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			COMP B, 1-COAT, 595B 57185 PC03GN246		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013540968		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBRKNC, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL ISOBUTYL KETONE (40.68%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	6	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		26	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	285.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			44	
㉘	10. Material Selection Recommendation	COMP B, 1-COAT, 595B 57185 PC03GN246					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			TT-P-2756, 37038, 1-COAT PC 03BK098		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013408713		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQGWF, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			2-4 PENTANEDIONE (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		20.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			45.00 F		
㉓	B. Boiling Point (BP)	285.00 F			230.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		6.90 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			40	
㉘	10. Material Selection Recommendation	TT-P-2756, 37038, 1-COAT PC 03BK098					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013408713		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQGWG, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			ALIPHATIC ISOCYANATE (0.005 ppm) (60.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.05 ppm	7	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			76.00 F		
㉓	B. Boiling Point (BP)	285.00 F			260.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			36	
㉘	10. Material Selection Recommendation	CAT, TT-P-2756, 37038, 1-COAT PC 03BK098CAT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013323737		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQSPX, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			AROMATIC 150 (2.92%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		60.00 mmHg	6	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			40	
㉘	10. Material Selection Recommendation	ECO-SURE BLUE 25042 SEMIGLOSS VOC-COMPLIANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ECO-SURE BROWN 30117 (674-394) P/N 672C894		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010001818277			8010013323739		
6	E. MSDS, Cage Number	BBMPYZ, 77672			BBTGMC, 0FTT5		
7	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			AROMATIC 150 (3.20%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		5.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	45.00 F			Not Listed		
23	B. Boiling Point (BP)	285.00 F			Not Listed		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		70.00 mmHg	7	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			41	
28	10. Material Selection Recommendation	ECO-SURE BROWN 30117 (674-394) P/N 672C894					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ID7329T106, 340 VOC GRAY TOP COAT 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010012938260		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBHXIX, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		22	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			34.00 F		
㉓	B. Boiling Point (BP)	285.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			38	
㉘	10. Material Selection Recommendation	ID7329T106, 340 VOC GRAY TOP COAT 37038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010012938260		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBHXKY, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		36	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	285.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			60	
㉘	10. Material Selection Recommendation	CATALYST ALIPHATIC ISOCYANATE REACTANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line # ALGORITHM STEP FOR EVALUATION		Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			340HS 24052 PC 835G002		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013303435		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQSNZ, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			SILICA, CRYSTALLINE, QUARTZ (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			80.00 F		
㉓	B. Boiling Point (BP)	285.00 F			213.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			42	
㉘	10. Material Selection Recommendation	340HS 24052 PC 835G002					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			DS 340 HS C/S PC 930G039		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013303435		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQSPB, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL N-AMYL KETONE (15.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) Table A-2f RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			89.00 F		
㉓	B. Boiling Point (BP)	285.00 F			300.00 F		
㉔	Flammable Combustible Liquids Points		9			8	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			43	
㉘	10. Material Selection Recommendation	DS 340 HS C/S PC 930G039					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			TT-L-20A WHITE 37875		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010005305326		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBPPBH, 00297		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL ISOBUTYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		33	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			23.00 F		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		16.00 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			42	
㉘	10. Material Selection Recommendation	TT-L-20A WHITE 37875					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A			Material B		
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			HEAT RESISTING EN-TT-E-496 A 14391		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010002972012		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBHMMC, 1J302		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			MINERAL SPIRITS (52.91%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		500.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	4	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		14	III
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			5
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			103.00 F		
㉓	B. Boiling Point (BP)	285.00 F			307.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		4.00 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			29	
㉘	10. Material Selection Recommendation	HEAT RESISTING EN-TT-E-496 A 14391					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			A-58A ENAMEL (TT-E-516A)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010008785761		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBFTMQ, 71191		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			PROPRIETARY INFORMATION		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.00	0	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		21	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			67.00 F		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			27	
㉘	10. Material Selection Recommendation	A-58A ENAMEL (TT-E-516A)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ENAMEL ALKYD GLOSS BROWN 10076 ID 742010		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010002982304		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBJLGL, 61196		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			LEAD CHROMATE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.05 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			102.00 F		
㉓	B. Boiling Point (BP)	285.00 F			302.00 F		
㉔	Flammable Combustible Liquids Points		9			7	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			41	
㉘	10. Material Selection Recommendation	ENAMEL ALKYD GLOSS BROWN 10076 ID 742010					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010005273200		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBQWBV, 61196		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			SILICA, CRYSTALLINE (1.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			24.00 F		
㉓	B. Boiling Point (BP)	285.00 F			139.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			50	
㉘	10. Material Selection Recommendation	ENAMEL, ALKYD, GLOSS LOW VOC ORANGE 12197					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			TT-E-489H LOW VOC (15182 BLUE)		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010010366344		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBVZJC, 00297		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL N-AMYL KETONE (10.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	12	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		23	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			56.00 F		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			31	
㉘	10. Material Selection Recommendation	TT-E-489H LOW VOC (15182 BLUE)					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ID 7329T107 340 VOC BLACK TOPCOAT 17038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010012936181		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBHXKL, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL N-AMYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		19	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	285.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		2.10 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			36	
㉘	10. Material Selection Recommendation	ID 7329T107 340 VOC BLACK TOPCOAT 17038					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ID 0320T136 HS HARDENER MIL-C-85285		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010012936181		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBHXKM, 98795		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			METHYL ETHYL KETONE (20.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		200.00 ppm	4	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		28	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			26.00 F		
㉓	B. Boiling Point (BP)	285.00 F			172.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		71.20 mmHg	8	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			52	
㉘	10. Material Selection Recommendation	ID 0320T136 HS HARDENER MIL-C-85285					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			ECO-SURE YELLOW 23538 (674-234) P/N 672C834		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013323746		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBTGMG, 0FTT5		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			AROMATIC 150 (2.80%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		5.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			Not Listed		
㉓	B. Boiling Point (BP)	285.00 F			Not Listed		
㉔	Flammable Combustible Liquids Points		9			0	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		70.00 mmHg	7	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			41	
㉘	10. Material Selection Recommendation	ECO-SURE YELLOW 23538 (674-234) P/N 672C834					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			A-4300-33538 AEROSOL FLAT YELLOW		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010001818277			8010013323745		
6	E. MSDS, Cage Number	BBMPYZ, 77672			BBSGJB, 65860		
7	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			XYLENE (10.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		39	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	45.00 F			Not Listed		
23	B. Boiling Point (BP)	285.00 F			-44.00 F		
24	Flammable Combustible Liquids Points		9			0	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	9	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		6.00 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			49	
28	10. Material Selection Recommendation	A-4300-33538 AEROSOL FLAT YELLOW					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
1	1. Information Needed						
2	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			COMP A MIL-P-233770 TY 1 CL C		
3	B. Located on AUL?	No			No		
4	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
5	D. National Stock Number (NSN), if any	8010001818277			801002Y403GK1		
6	E. MSDS, Cage Number	BBMPYZ, 77672			BB02Y0, 33461		
7	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			ETHYL BENZENE (LOWER VP) (1.00%)		
8	2. Hazard Severity Code (HSC) Element						
9	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		100.00 ppm	5	
10	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
11	C. Environmental Impact Attributes						
12	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
13	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
14	(3) Federal/State Permits	Yes	6		Yes	6	
15	(4) Reportable Quantities (RQ) Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		1000.00 lbs	4	
16	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
17	(6) Total Environmental Impact Attributes						
18	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		31	I
19	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
20	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
21	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
22	A. Flash Point (FP)	45.00 F			46.00 F		
23	B. Boiling Point (BP)	285.00 F			213.00 F		
24	Flammable Combustible Liquids Points		9			9	
25	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
26	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		7.10 mmHg	1	
27	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			46	
28	10. Material Selection Recommendation	COMP A MIL-P-233770 TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			COMP B, MIL-P-23377G, TY 1 CL C		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			801002Y403GK1		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BB0Y04, 33461		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			SEC-BUTYL ALCOHOL (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		100.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Temporary	8	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			72.00 F		
㉓	B. Boiling Point (BP)	285.00 F			211.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory Protection	5	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		12.50 mmHg	2	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			43	
㉘	10. Material Selection Recommendation	COMP B, MIL-P-23377G, TY 1 CL C					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			MIL-P-23377F EPOXY TY 1 CL 2 513X419		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013162552		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBVYKT, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			STRONTIUM CHROMATE (TLV=0.0005) (25.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.05 mg/m3	16	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		10.00 lbs	8	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		54	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			61.00 F		
㉓	B. Boiling Point (BP)	285.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		0.00 mmHg	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			70	
㉘	10. Material Selection Recommendation	CATALYST ALIPHATIC ISOCYANATE REACTANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed						
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			HIGH SOLIDS PRIMER ACTIVATOR 910X942		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010013162552		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBVYKV, 85570		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			N-BUTYL ALCOHOL (5.00%)		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		50.00 ppm	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		Yes	8	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ) (Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		5000.00 lbs	2	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		37	I
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			3
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			51.00 F		
㉓	B. Boiling Point (BP)	285.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		5.50 mmHg	1	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			54	
㉘	10. Material Selection Recommendation	CATALYST ALIPHATIC ISOCYANATE REACTANT					

HAZARDOUS MATERIAL SUBSTITUTION ALGORITHM WORKSHEET

Line #	ALGORITHM STEP FOR EVALUATION	Material A		Material B			
		INFORMATION	Pts	Code	INFORMATION	Pts	Code
①	1. Information Needed	INFORMATION			INFORMATION		
②	A. Candidate Material/Product Name	CATALYST ALIPHATIC ISOCYANATE REACTANT			SUPER DESOTHANE 828X310, BLACK 37038		
③	B. Located on AUL?	No			No		
④	C. Similar Operational Use	PAINT/STENCIL/PACKOUT			PAINT/STENCIL/PACKOUT		
⑤	D. National Stock Number (NSN), if any	8010001818277			8010004825671		
⑥	E. MSDS, Cage Number	BBMPYZ, 77672			BBFBBD, 62758		
⑦	F. Specific Chemical Constituent Analyzed	HEXAMETHYLENE DIISOCYANATE (15.00%)			AMORPHOUS SILICA, SILICON DIOXIDE, QUARTZ INTENDED		
⑧	2. Hazard Severity Code (HSC) Element						
⑨	A. Exposure Restrictions (PEL/TLV) Tables A-2a, A-2b, & A-2c	0.02 ppm	5		0.10 mg/m3	5	
⑩	B. Medical Effects (Table A-2d)	Temporary	8		Permanent,	16	
⑪	C. Environmental Impact Attributes						
⑫	(1) EPA/State/Local Regulations Lists (Tbl A-2e(1))	Yes	8		No	0	
⑬	(2) RCRA Wastes Not Otherwise Listed (Tbl A-2e(2))	No	0		No	0	
⑭	(3) Federal/State Permits	Yes	6		Yes	6	
⑮	(4) Reportable Quantities (RQ))Table A-2f) RQ in EPA "List of Lists" (Fig A1)	1.00 lbs	10		Not On List	0	
⑯	(5) Permissible Air Emissions (Table A-2g) Air Emissions in 40 CFR 52.21(b)(23) (Fig A2)	Not On List	0		Not On List	0	
⑰	(6) Total Environmental Impact Attributes						
⑱	3. Hazard Severity Code (HSC) Elements Sum of 9 + 10 + 12 + 13 + 14 + 15 + 16		37	I		27	II
⑲	4. Hazard Probability Code (HPC) Length of Exposure (Table A-1)	2.50 Hrs/wk		D	2.50 Hrs/wk		D
⑳	5. Hazard Risk Index (HRI) (Figures A3 & A4)			3			4
㉑	6. Flammable Combustible Liquids (Tables A-6a & A-6b)						
㉒	A. Flash Point (FP)	45.00 F			22.00 F		
㉓	B. Boiling Point (BP)	285.00 F			175.00 F		
㉔	Flammable Combustible Liquids Points		9			9	
㉕	7. Personal Protective Equipment (PPE) (Table A-7) PPE Requirements	Respiratory, Eye, and Skin	7		Respiratory, Eye, and Skin	7	
㉖	8. Volatility (Table A-8) Vapor Pressure (VP)	Not Listed	0		Not Listed	0	
㉗	9. Hazardous Material Selection Factor (HMSF) Sum of 18 + 24 + 25 + 26		53			43	
㉘	10. Material Selection Recommendation	SUPER DESOTHANE 828X310, BLACK 37038					

APPENDIX D

LIST OF POLLUTION PREVENTION ALTERNATIVES DEVELOPED FOR
INDIAN HEAD DIVISION, NAVAL SURFACE WARFARE CENTER

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG.	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
1	Silicone Primer	SS-4004 Silicone Primer	General Electric Company	18	21.80	pint	634.00	4452.96	for 12 or more pints; flammable hazmat shipping fee is \$18; delivery fee is \$20; delivery is free with purchase of \$300 or more
		1204 Adhesive Primer	Dow Corning Corp.	51	28.00	can	755.34	5304.21	13.5 oz. can, min order is 24 cans; shipping for 24 cans is \$3.14
		1200 RTV Primer	Dow Corning Corp.	37	21.00	can	646.09	4537.88	13.5 oz. can, min order is 24 cans; shipping for 24 cans is \$3.14
		All Purpose Primer	Seymour of Sycamore, Inc.	36	1.96	pint	39.20	275.33	includes shipping costs
		Norsil Silicone Primer	R.H. Carlson Company, Inc.	47	7.04	kit	849.35	5965.49	the kit contains 3 oz of primer
2	Release Agent	MS-143 Fluorocarbon Release Agent	Miller-Stephenson Chemical	46	211.20	gallon	612.80	4304.06	based on order of 1-4 gallons; shipping for 10 gallons is \$40
		1-2531 Release Coating	Dow Corning Corp	57	4.35	lb	267.61	1879.59	material shipped in 35 lb containers; shipping for 35 lbs is \$6.36
		Camie #A1000 Dry Lubricant	Camie-Campbell	48	68.28	case	185.56	1303.30	each case contains 12-20 oz cans; price includes shipping
		MS-143N Release Agent/Dry Lubricant	Miller-Stephenson Chemical	37	97.80	gallon	203.60	1430.00	based on order of 1-4 gallons; shipping for 10 gallons is \$40
		MS-122N/CO2 TFE Release Agent	Miller-Stephenson Chemical	37	7.95	can	164.20	942.57	based on order of 12 to 143 cans; each can contains 16 oz of release agent; shipping fee for approx 48 cans is \$20
		MS-136N/CO2 Release Agent	Miller-Stephenson Chemical	48	7.95	can	134.20	942.57	based on order of 12 to 143 cans; each can contains 16 oz of release agent; shipping fee for approx 48 cans is \$20
		Spectrum Release W.B.	Edcoo	20	4.90	gallon	214.84	1508.95	price applies when ordering a 55 drum of material; when ordering a 5 gallon pail the price is \$4.90 a gallon; does not include shipping
		Release #1 VOC	Edcoo	23	3.71	gallon	87.62	615.41	price applies when ordering a 55 drum of material; when ordering a 5 gallon pail the price is \$3.71 a gallon; does not include shipping
		Release All Safelease 30	Airtach International Inc.	21	75.45	can	384.74	2702.26	price applies to a can containing 5 gallons of material; the price for a one gallon can is \$75.45; shipped FOB California price
3	Adhesives	A-12 Parts A and B Adhesive	Armstrong Products Co.	15/15	102.42	kit	1904.50	7687.33	Part A (1qt) is \$51.62; Part B (1qt) is \$50.80; min order is \$75; does not include shipping
		Pliobond 20	Ashland Chemical, Inc.	65	14.41	quart	264.96	1860.97	price includes shipping
		PSI-601 Silicone Sealant	Polymeric Systems, Inc.	23	4.48	kit	341.84	2400.95	kit contains 12 oz of adhesive; contains PSI-601 Silicone Sealant and PSI-690 Primer; price includes shipping
		Spray Trim Adhesive P/N 08074	3M Center	50	9.79	can	137.00	962.23	each can contains 24 oz of adhesive; price includes shipping
		MMMA-1058A Adhesive, PC-NAPCO	National Aerosol Products Co.	43	4.14	can	68.36	480.13	each can contains 24 oz of adhesive; price includes shipping
		EPK 0151 Parts A and B Adhesive	Dexter Adhesives/Structural Mats	20/20	5.04	kit	574.30	4033.65	kit contains 3.35 oz of adhesive; price includes shipping
		Unsaturated Polyester Resin	Aristech Chemical Corp.	48	39.17	gallon	194.41	1364.46	price includes shipping
		A-1177-B-1/2 Two Part Epoxy Adhesive	B.F. Goodrich	14/17	16.09	kit	407.80	2864.22	kit contains one quart of adhesive; price includes shipping
		PSI-631 Silicone Sealant	Polymeric Systems, Inc.	31	4.45	tube	208.04	1461.19	12 tubes to a case; shipped FOB Phoenixville, PA
		PSI-322 Clear & FD Clear Epoxy Gel, Pts A&B	Polymeric Systems, Inc.	18/20	108.50	kit	1164.90	8181.79	kit contains 2 lb of adhesive - parts A & B; 3 kits to a case; shipped FOB Phoenixville, PA
		PSI-367 Parts A and B Epoxy Paste	Polymeric Systems, Inc.	14/14	23.80	kit	317.90	2232.80	kit contains 2 lb of adhesive - parts A & B; 3 kits to a case; shipped FOB Phoenixville, PA
		PSI-613 High Temperature Silicone Sealant	Polymeric Systems, Inc.	22	5.65	tube	207.80	1459.50	12 tubes to a case; shipped FOB Phoenixville, PA
		General Purpose Adhesive Spray	Camie-Campbell, Inc.	50	57.24	case	325.86	2288.71	each case contains 12-24 oz cans; \$200 min order; price includes shipping
		L-6261 GSA Adhesive	Camie-Campbell, Inc.	69	3.90	can	140.04	983.58	can contains 24 oz of adhesive; price includes shipping
4	Acetone	Acetone	Mallinckrodt Chemical, Inc.	56	1.50	lb	586.45	4118.99	price applies to 55 gallon drum weighing 350 lbs; FOB shipping
		Finger Lakes ID/4R, P/N-FLSC-98	Finger Lakes Chemical	23	894.00	drum	906.25	6365.14	price applies to 55 gallon drum; shipping included
		Safe Stuff, Limonene Cleaner, P/N-FLSC-75	Finger Lakes Chemical	32	546.95	drum	546.95	3841.56	price applies to 55 gallon drum; shipping included
		3-D Degreaser, P/N-FLSC-97	Finger Lakes Chemical	19	759.25	drum	775.45	5446.45	price applies to 55 gallon drum; shipping included
		Nature-Sol 100	Brulin and Company, Inc.	28	63.50	drum	121.30	851.96	price applies to 55 gallon drum; shipping included
		Brulin SD 1291	Brulin and Company, Inc.	29	128.50	can	1471.30	10333.82	price applies to 55 gallon can; shipping included
		Safety Prep, FD 080	Inland Technology, Inc.	17	550.00	drum	579.95	4073.34	price applies to 55 gallon drum; shipping included
4	Acetone	Acetone	Mallinckrodt Chemical, Inc.	56	1.50	lb	4904.80	34449.35	price applies to 55 gallon drum weighing 350 lbs; FOB shipping
		Finger Lakes ID/4R, P/N-FLSC-98	Finger Lakes Chemical	23	894.00	drum	8095.00	56856.04	price applies to 55 gallon drum; shipping included
		Safe Stuff, Limonene Cleaner, P/N-FLSC-75	Finger Lakes Chemical	32	546.95	drum	4922.55	34574.02	price applies to 55 gallon drum; shipping included
		3-D Degreaser, P/N-FLSC-97	Finger Lakes Chemical	19	759.25	drum	6898.05	48449.14	price applies to 55 gallon drum; shipping included
		Nature-Sol 100	Brulin and Company, Inc.	28	63.50	drum	771.50	5418.71	price applies to 55 gallon drum; shipping included
		Brulin SD 1291	Brulin and Company, Inc.	29	128.50	can	12921.50	90755.45	price applies to 55 gallon can; shipping included
		Safety Prep, FD 080	Inland Technology, Inc.	17	550.00	drum	5069.80	35608.25	price applies to 55 gallon drum; shipping included

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG.	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
5	Toluene	1190, 1041 Toluene (Cleaning of Mix Bond/Cast Tooling)	Ashland Chemical	71	0.29	lb	3318.08	23304.87	price applies to 55 gallon drum weighing 397 lbs; FOB shipping
		Klean-Green Cleaning Solvent	W.M. Barr & Company, Inc.	35	2.10	pint	302645.60	2125661.64	price applies when ordering 500 lbs & includes shipping; 12 pints weigh 11 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Strip Mil-Klean	W.M. Barr & Company, Inc.	28	5.42	gallon	8013.40	56282.92	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 37 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Green Toluene/Xylene Sub	W.M. Barr & Company, Inc.	45	6.28	gallon	9251.80	64980.94	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 31 lbs; when ordering less than 500 lbs, FOB prices apply
		Hurrisafe 9040 Special Formula	PCI of America	15	699.96	drum	18898.92	132738.45	price applies to 55 gallon drum; shipping included
		FC056 Citra Safe	Inland Technology, Inc.	24	2061.82	drum	55849.94	392267.64	price applies to 55 gallon drum; shipping included
		Safety Prep, FD 080	Inland Technology, Inc.	17	550.00	drum	14969.80	105141.89	price applies to 55 gallon drum; shipping included
5	Toluene	1190 Toluene (Daily Cleanup of Mix Blades)	Ashland Chemical	71	0.29	lb	82.66	580.57	price applies to 55 gallon drum weighing 397 lbs; FOB shipping
		Klean-Green Cleaning Solvent	W.M. Barr & Company, Inc.	35	2.10	pint	258.75	1817.36	price applies when ordering 500 lbs & includes shipping; 12 pints weigh 11 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Strip Mil-Klean	W.M. Barr & Company, Inc.	28	5.42	gallon	122.19	858.21	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 37 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Green Toluene/Xylene Sub	W.M. Barr & Company, Inc.	45	6.28	gallon	132.51	930.70	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 31 lbs; when ordering less than 500 lbs, FOB prices apply
		Hurrisafe 9040 Special Formula	PCI of America	15	699.96	drum	152.72	1072.64	price applies to 55 gallon drum; shipping included
		FC056 Citra Safe	Inland Technology, Inc.	24	2061.82	drum	500.05	3512.15	price applies to 55 gallon drum; shipping included
		Safety Prep, FD 080	Inland Technology, Inc.	17	550.00	drum	149.95	1053.19	price applies to 55 gallon drum; shipping included
6	Primer	715 #1001 Zinc Primer Liquid	PRC Industries, Inc.	48	22.22	gallon	2846.20	19900.57	price does not include shipping; discounts are available
		TT-E-54SC Alkyd Primer	Davlin Paint Company, Inc.	18	15.25	gallon	1830.00	12853.19	price includes shipping
		So-Sure Primer Yellow 33637 PN 782-831	LHB Industries	51	36.25	box	3045.00	21386.86	one box contains 12 aerosol cans; shipping included
		Formula 84 Primer Coating	Crawford Laboratories	38	24.38	gallon	3125.60	21952.96	price includes shipping
		TT-P-1757 Yellow Zinc Chromate Primer	Sentry Paint & Chemical Company	41	102.26	can	2606.24	18305.19	price applies to a 5 gallon can; shipping included
		Primer Coating, Zinc Chromate Comp L	Pratt and Lambert	34	21.76	gallon	2691.40	18903.32	price includes shipping
		TT-P-1757 Zinc Chromate Primer (Yellow)	Kop-Coat Inc.	35	2.20	pint	2344.60	16467.53	price includes shipping
		TT-P-645B Formula 84 No. 33793	Davlin Paint Company, Inc.	45	120.69	can	3076.36	21607.12	price applies to a 5 gallon can; shipping included
		Lacquer Primer MIL-P-7962	Randolph Products Company	31	29.00	gallon	3711.40	26067.39	based on a min order of 12 gal; min invoice is \$100; shipping included
7	Paint Thinner	715 MTL-T-81772B Solvent Thinner	DeSoto, Inc.	50	54.23	gallon	6652.6	46725.20	price does not include shipping
		T-81772 Type 2 Epoxy Thinner	Ashland Chemical, Inc.	54	305.53	drum	1051.73	7386.93	price applies to 55 gallon drum; shipping included
		TT-T-291E Thinner	Atlas Paint and Varnish Company	23	3.98	gallon	557.80	3917.76	price includes shipping
		MIL-T-81772, Thinner, Paint Product	CSD, Inc.	45	6.44	gallon	1038.04	7290.78	price includes shipping
		TL 102 Thinner, Aliphatic, Polyurethane	Sikkens Aerospace Finishes Div.	39	27.08	can	829.72	5827.62	price applies to a 5 gallon can; shipping included
		CSD 81772 Type I A Thinner, Epoxy	Ashland Chemical, Inc.	62	34.95	can	1025.60	7203.40	price applies to a 5 gallon can; shipping included
		Synthetic Resin Thinner	Potter Paint Company, Inc.	48	4.64	gallon	725.78	5097.59	price includes shipping
		TT-T-266D Thinner, PN 1181T4A	Kop-Coat, Inc.	42	19.79	can	654.76	4598.77	price applies to a 5 gallon can; shipping included
		Paint Thinner	Home Oil Company	43	4.00	gallon	576.00	4045.59	price includes shipping
		Chevron Thinner 350 H	Cherron Environmental Health Cnt	40	4.00	gallon	529.00	3715.48	price includes shipping
		Klean-Strip Lacquer Thinner, LT-27	W.M. Barr and Company, Inc.	47	4.83	gallon	847.00	5948.99	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 31 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Strip Mineral Spirits, PN-GMS44	W.M. Barr and Company, Inc.	41	3.86	gallon	730.60	5131.44	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 29 lbs; when ordering less than 500 lbs, FOB prices apply
		Klean-Strip Paint Thinner	W.M. Barr and Company, Inc.	44	2.83	gallon	519.40	3648.06	price applies when ordering 500 lbs & includes shipping; 4 gal weigh 29 lbs; when ordering less than 500 lbs, FOB prices apply
		Regular Mineral Spirits	Puma Chemical Company, Inc.	51	4.00	gallon	681.40	4785.88	price includes shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG.	PRODUCT	MANUFACTURER	INVS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES	
7	Paint Thinner	715	CHEMGLAZE 9951 Thinner	Lord Corp Chemical Products	45	20.00	gallon	2585.84	18161.91	min order of \$400; price does not include shipping
			T-81772 Type 2 Epoxy Thinner	Ashland Chemical, Inc.	54	305.53	drum	1051.73	7386.93	price applies to 55 gallon drum; shipping included
			TT-1-291E Thinner	Atlas Paint and Varnish Company	23	3.98	gallon	557.80	3917.76	price includes shipping
			MIL-T-81772, Thinner, Paint Product	CSD, Inc.	45	6.44	gallon	1038.04	7290.78	price includes shipping
			TL 102 Thinner, Aliphatic, Polyurethane	Sikkens Aerospace Finishes Div.	39	27.08	can	829.72	5827.62	price applies to a 5 gallon can; shipping included
			CSD 81772 Type I A Thinner, Epoxy	Ashland Chemical, Inc.	62	34.95	can	1025.60	7203.40	price applies to a 5 gallon can; shipping included
			Synthetic Resin Thinner	Potter Paint Company, Inc.	48	4.64	gallon	725.78	5097.59	price includes shipping
			TT-T-266D Thinner, PN 1181T4A	Kop-Coat, Inc.	42	19.79	can	654.76	4598.77	price applies to a 5 gallon can; shipping included
			Paint Thinner	Home Oil Company	43	4.00	gallon	576.00	4045.59	price includes shipping
			Chevron Thinner 350 H	Chevron Environmental Health Cnt	40	4.00	gallon	529.00	3715.48	price includes shipping
			Klean-Strip Lacquer Thinner, LT-27	W.M. Barr and Company, Inc.	47	4.83	gallon	847.00	5948.99	price applies when ordering 500 lbs & includes shipping; 4 gal weight 31 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Mineral Spirits, PN-GMS44	W.M. Barr and Company, Inc.	41	3.86	gallon	730.60	5131.44	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Paint Thinner	W.M. Barr and Company, Inc.	44	2.83	gallon	519.40	3648.06	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Regular Mineral Spirits	Puma Chemical Company, Inc.	51	4.00	gallon	681.40	4785.88	price includes shipping
7	Paint Thinner	715	Thinner Synthetic Resin Thinner	CSD, Inc.	41	4.64	gallon	765.40	5375.86	price includes shipping
			T-81772 Type 2 Epoxy Thinner	Ashland Chemical, Inc.	54	305.53	drum	1051.73	7386.93	price applies to 55 gallon drum; shipping included
			TT-1-291E Thinner	Atlas Paint and Varnish Company	23	3.98	gallon	557.80	3917.76	price includes shipping
			MIL-T-81772, Thinner, Paint Product	CSD, Inc.	45	6.44	gallon	1038.04	7290.78	price includes shipping
			TL 102 Thinner, Aliphatic, Polyurethane	Sikkens Aerospace Finishes Div.	39	27.08	can	829.72	5827.62	price applies to a 5 gallon can; shipping included
			CSD 81772 Type I A Thinner, Epoxy	Ashland Chemical, Inc.	62	34.95	can	1025.60	7203.40	price applies to a 5 gallon can; shipping included
			Synthetic Resin Thinner	Potter Paint Company, Inc.	48	4.64	gallon	725.78	5097.59	price includes shipping
			TT-T-266D Thinner, PN 1181T4A	Kop-Coat, Inc.	42	19.79	can	654.76	4598.77	price applies to a 5 gallon can; shipping included
			Paint Thinner	Home Oil Company	43	4.00	gallon	576.00	4045.59	price includes shipping
			Chevron Thinner 350 H	Chevron Environmental Health Cnt	40	4.00	gallon	529.00	3715.48	price includes shipping
			Klean-Strip Lacquer Thinner, LT-27	W.M. Barr and Company, Inc.	47	4.83	gallon	847.00	5948.99	price applies when ordering 500 lbs & includes shipping; 4 gal weight 31 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Mineral Spirits, PN-GMS44	W.M. Barr and Company, Inc.	41	3.86	gallon	730.60	5131.44	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Paint Thinner	W.M. Barr and Company, Inc.	44	2.83	gallon	519.40	3648.06	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Regular Mineral Spirits	Puma Chemical Company, Inc.	51	4.00	gallon	681.40	4785.88	price includes shipping
7	Paint Thinner	715	Mineral Spirits	CSD, Inc.	45	12.40	can	476.44	3346.32	price applies to a 5 gallon can; shipping included
			T-81772 Type 2 Epoxy Thinner	Ashland Chemical, Inc.	54	305.53	drum	1051.73	7386.93	price applies to 55 gallon drum; shipping included
			TT-1-291E Thinner	Atlas Paint and Varnish Company	23	3.98	gallon	557.80	3917.76	price includes shipping
			MIL-T-81772, Thinner, Paint Product	CSD, Inc.	45	6.44	gallon	1038.04	7290.78	price includes shipping
			TL 102 Thinner, Aliphatic, Polyurethane	Sikkens Aerospace Finishes Div.	39	27.08	can	829.72	5827.62	price applies to a 5 gallon can; shipping included
			CSD 81772 Type I A Thinner, Epoxy	Ashland Chemical, Inc.	62	34.95	can	1025.60	7203.40	price applies to a 5 gallon can; shipping included
			Synthetic Resin Thinner	Potter Paint Company, Inc.	48	4.64	gallon	725.78	5097.59	price includes shipping
			TT-T-266D Thinner, PN 1181T4A	Kop-Coat, Inc.	42	19.79	can	654.76	4598.77	price applies to a 5 gallon can; shipping included
			Paint Thinner	Home Oil Company	43	4.00	gallon	576.00	4045.59	price includes shipping
			Chevron Thinner 350 H	Chevron Environmental Health Cnt	40	4.00	gallon	529.00	3715.48	price includes shipping
			Klean-Strip Lacquer Thinner, LT-27	W.M. Barr and Company, Inc.	47	4.83	gallon	847.00	5948.99	price applies when ordering 500 lbs & includes shipping; 4 gal weight 31 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Mineral Spirits, PN-GMS44	W.M. Barr and Company, Inc.	41	3.86	gallon	730.60	5131.44	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Klean-Strip Paint Thinner	W.M. Barr and Company, Inc.	44	2.83	gallon	519.40	3648.06	price applies when ordering 500 lbs & includes shipping; 4 gal weight 29 lbs; when ordering less than 500 lbs, FOB prices apply
			Regular Mineral Spirits	Puma Chemical Company, Inc.	51	4.00	gallon	681.40	4785.88	price includes shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8	Paint	715	Krylon High Heat Spray Paint						
			MIL-L-81352, Lacquer, Acrylic	38	3.70	can	3697.00	25966.25	16 oz can, price does not include shipping
			So-Sure White 17875 (144-170)	43	27.86	gallon	3343.10	23481.30	price includes shipping
			TT-L-32A, AM-1 TY II, Blue 1510	53	3.65	pint	3649.00	25629.12	price includes shipping
			Polyurethane Coating, Green 24052, Parts 1&2	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Polyurethane Coating, Black 37038, Parts 1&2	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit, shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant	4036	75.34	kit	4720.40	33154.20	price applies to a two gallon kit, shipping included
			Eco-Sure Brown 30117	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			Polyurethane High Solids, Black 37038, Pts 1&2	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit, shipping included
			TT-L-20A Lacquer, White 37875	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit, shipping included
			Heat Resisting EN-TT-E-496A 14391	29	25.84	gallon	3280.60	23041.62	price includes shipping
			A-58A Enamel (TT-E-516A)	27	2.23	pint	2340.80	16440.84	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197	50	41.32	gallon	5132.20	36046.52	price includes shipping
			TT-E-489H Low VOC (15182 Blue)	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Polyurethane Coating, Black 17038, Parts 1&2	36/52	78.08	kit	6308.20	44306.27	price includes shipping
			Eco-Sure Yellow 23538 Enamel	41	6.42	pint	6308.20	44306.27	price applies to a two gallon kit, shipping included
			A-4300-33538 Aerosol Flat Yellow	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
			02-Y-40 3GK Epoxy 13538 Comp A & B	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit, shipping is not included
			Super Desothane 828X310 Black 37038	43	124.74	gallon	15113.80	106153.29	price does not include shipping
8	Paint	715	Krylon 1402 High Heat Alume Paint						
			MIL-L-81352, Lacquer, Acrylic	35	3.70	can	3687.00	25966.25	16 oz can, price does not include shipping
			So-Sure White 17875 (144-170)	43	27.86	gallon	3343.10	23481.30	price includes shipping
			TT-L-32A, AM-1 TY II, Blue 1510	53	3.65	pint	3649.00	25629.12	price includes shipping
			Polyurethane Coating, Green 24052, Parts 1&2	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Polyurethane Coating, Black 37038, Parts 1&2	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit, shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant	4036	75.34	kit	4720.40	33154.20	price applies to a two gallon kit, shipping included
			Eco-Sure Brown 30117	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			Polyurethane High Solids, Black 37038, Pts 1&2	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit, shipping included
			TT-L-20A Lacquer, White 37875	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit, shipping included
			Heat Resisting EN-TT-E-496A 14391	29	25.84	gallon	3280.60	23041.62	price includes shipping
			A-58A Enamel (TT-E-516A)	27	2.23	pint	2340.80	16440.84	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197	50	41.32	gallon	5132.20	36046.52	price includes shipping
			TT-E-489H Low VOC (15182 Blue)	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Polyurethane Coating, Black 17038, Parts 1&2	36/52	78.08	kit	6308.20	44306.27	price includes shipping
			Eco-Sure Yellow 23538 Enamel	41	6.42	pint	6308.20	44306.27	price applies to a two gallon kit, shipping included
			A-4300-33538 Aerosol Flat Yellow	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
			02-Y-40 3GK Epoxy 13538 Comp A & B	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit, shipping is not included
			Super Desothane 828X310 Black 37038	43	124.74	gallon	15113.80	106153.29	price does not include shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BDX:	PRODUCT	MANUFACTURER	HMS	Prior Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8 Paint	715	Epoxy: MIL-P-85502B, TY-101C1	Defl, Inc.	34	16.86 kit	8141.80	57184.75	price applies to one quart kit; includes shipping
		MIL-L-81352, Lacquer, Acrylic	Lennar Lacquers, Inc.	43	27.86 gallon	3343.10	23481.30	price includes shipping
		So-Sure White 17875 (144-170)	LHB Industries	53	3.65 pint	3649.00	25629.12	price includes shipping
		TT-L-32A, AM-1 TY II, Blue 1510	Enmar	46	33.13 gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	35/44	19.00 kit	4847.60	34047.60	price applies to a two quart kit; shipping included
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	40/36	75.34 kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88 box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Eco-Sure Brown 30117	LHB Industries	41	55.53 box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63 kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65 kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84 gallon	3280.60	23041.62	price includes shipping
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56 gallon	3694.60	25949.39	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23 pint	2340.80	16440.84	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55 gallon	2639.80	18540.90	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32 gallon	5132.20	36046.52	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93 gallon	2931.64	20590.67	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08 kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
		Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42 pint	6308.20	44306.27	price includes shipping
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88 box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50 kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		MIL-P-23377E Epoxy TY1C1 2 513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02 kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
		Super Desothane 828X310 Black 37038	DeSoto, Inc.	43	124.74 gallon	15113.80	106153.29	price does not include shipping
8 Paint	715	Aliphatic Isocyanate	Defl, Inc.	46	73.62 kit	7116.52	49983.59	part A - one gallon, part B - one quart; includes shipping
		MIL-L-81352, Lacquer, Acrylic	Lennar Lacquers, Inc.	43	27.86 gallon	3343.10	23481.30	price includes shipping
		So-Sure White 17875 (144-170)	LHB Industries	53	3.65 pint	3649.00	25629.12	price includes shipping
		TT-L-32A, AM-1 TY II, Blue 1510	Enmar	46	33.13 gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	35/44	19.00 kit	4847.60	34047.60	price applies to a two quart kit; shipping included
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	40/36	75.34 kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88 box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Eco-Sure Brown 30117	LHB Industries	41	55.53 box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63 kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65 kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84 gallon	3280.60	23041.62	price includes shipping
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56 gallon	3694.60	25949.39	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23 pint	2340.80	16440.84	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55 gallon	2639.80	18540.90	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32 gallon	5132.20	36046.52	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93 gallon	2931.64	20590.67	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08 kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
		Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42 pint	6308.20	44306.27	price includes shipping
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88 box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50 kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		MIL-P-23377E Epoxy TY1C1 2 513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02 kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
		Super Desothane 828X310 Black 37038	DeSoto, Inc.	43	124.74 gallon	15113.80	106153.29	price does not include shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BIDG.	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8	Paint	715							
Polyurethane, MIL-C-45245B, 17925 TY I									
		MIL-L-81352, Lacquer, Acrylic	Defl, Inc.	34	16.07	gallon	3905.80	27432.78	two quart kit, includes shipping
		So-Sure White 17875 (144-170)	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
		TT-L-32A, AM-I TY II, Blue 1510	Enmar	53	3.65	pint	3649.00	25629.12	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	46	33.13	gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit, shipping included
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit, shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Eco-Sure Brown 30117	LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit, shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit, shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two quart kit, shipping included
		Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		MIL-P-23377F Epoxy TY ICI 2.513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
		Super Desothane 828X310 Black 37038	DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping
Pigmented Polyurethane									
8	Paint	715							
Pigmented Polyurethane									
		MIL-L-81352, Lacquer, Acrylic	Chemray Coatings Corp.	41	102.26	can	2663.32	18706.09	price applies to a 5 gallon can; shipping included
		So-Sure White 17875 (144-170)	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
		TT-L-32A, AM-I TY II, Blue 1510	Enmar	53	3.65	pint	3649.00	25629.12	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	46	33.13	gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit, shipping included
		Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit, shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Eco-Sure Brown 30117	LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit, shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit, shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit, shipping included
		Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		MIL-P-23377F Epoxy TY ICI 2.513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
		Super Desothane 828X310 Black 37038	DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG	715	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8	Paint	715	So-Sure Lacquer	LHB Industries	58	2.08	pint	2045.80	14368.88	price includes shipping
			MIL-L-81352, Lacquer, Acrylic	LHB Industries	58	2.08	pint	2045.80	14368.88	price includes shipping
			So-Sure White 17875 (144-170)	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
			TT-L-32A, AM-1 TY II, Blue 1510	Enmar	53	3.65	pint	3649.00	25629.12	price includes shipping
			Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit; shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
			Eco-Sure Brown 30117	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			Polyurethane High Solids, Black 37038, Pts 1&2	LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
			TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
			Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
			A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
			TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
			Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
			A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
8	Paint	715	02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
			Super Desolthane 828X310 Black 37038	DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping
			So-Sure Blue 35109 (54-3490)P	LHB Industries	51	2.06	pint	2122.60	14908.29	price includes shipping
			MIL-L-81352, Lacquer, Acrylic	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
			So-Sure White 17875 (144-170)	LHB Industries	53	3.65	pint	3649.00	25629.12	price includes shipping
			TT-L-32A, AM-1 TY II, Blue 1510	Enmar	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Polyurethane Coating, Green 24052, Parts 1&2	Defl, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 37038, Parts 1&2	Defl, Inc.	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			Eco-Sure Brown 30117	LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
			TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
			Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
			A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
			TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
			Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
			A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
			02-Y-40 3GK Epoxy 13538 Comp A & B	Defl, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	Courtauld Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
			Super Desolthane 828X310 Black 37038	DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8 Paint	715	So-Sure Yellow 23538 (144-170)G	Lenmar Lacquers, Inc.	67	2.28	pint	2333.80	16391.68	price includes shipping
		So-Sure White 17875 (144-170)	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
		TT-L-32A, AM-1 TY II, Blue 1510	Enmar	53	3.65	pint	3649.00	25629.12	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	46	33.13	gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit; shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
		Eco-Sure Brown 30117	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	41	55.53	box	4387.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	38/60	72.63	kit	4302.80	31625.87	price applies to a two gallon kit; shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	42	25.84	gallon	3280.60	23041.62	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	27	2.23	pint	2340.80	16440.84	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	50	41.32	gallon	5132.20	36046.52	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	31	21.93	gallon	2931.64	20590.67	price includes shipping
		Eco-Sure Yellow 23538 Enamel	LHB Industries	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	41	6.42	pint	6308.20	44306.27	price includes shipping
		02-Y-40 3GK Epoxy 13538 Comp A & B	Deft, Inc.	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	Courtauld Aerospace	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		Super Desolthane 828X310 Black 37038	DeSoto, Inc.	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
				43	124.74	gallon	15113.80	106153.29	price does not include shipping

8 Paint	715	Metallac Topcoats	Rust-Oleum Corporation						discontinued product; price unknown
		Discontinued							

8 Paint	715	HARD EAT Fluorescent Topcoats	Rust-Oleum Corporation						
		MIL-L-81352, Lacquer, Acrylic	Lenmar Lacquers, Inc.	75	6.86	can	7691.00	54018.51	14 oz can; does not include shipping
		So-Sure White 17875 (144-170)	LHB Industries	43	27.86	gallon	3343.10	23481.30	price includes shipping
		TT-L-32A, AM-1 TY II, Blue 1510	Enmar	53	3.65	pint	3649.00	25629.12	price includes shipping
		Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	46	33.13	gallon	4120.60	28941.45	price includes shipping
		Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit; shipping included
		Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
		Eco-Sure Brown 30117	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
		Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	41	55.53	box	4387.40	32220.86	box contains 12 aerosol cans; shipping included
		Polyurethane Coating, Green 24052, Parts 1&2	Courtauld Aerospace	38/60	72.63	kit	4302.80	31625.87	price applies to a two gallon kit; shipping included
		TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
		Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	42	25.84	gallon	3280.60	23041.62	price includes shipping
		A-58A Enamel (TT-E-516A)	Koppers Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
		Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	27	2.23	pint	2340.80	16440.84	price includes shipping
		Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
		TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	50	41.32	gallon	5132.20	36046.52	price includes shipping
		Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	31	21.93	gallon	2931.64	20590.67	price includes shipping
		Eco-Sure Yellow 23538 Enamel	LHB Industries	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
		A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	41	6.42	pint	6308.20	44306.27	price includes shipping
		02-Y-40 3GK Epoxy 13538 Comp A & B	Deft, Inc.	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
		MIL-P-23377F Epoxy TYICI 2 513X419 Pt 1&2	Courtauld Aerospace	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
		Super Desolthane 828X310 Black 37038	DeSoto, Inc.	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
				43	124.74	gallon	15113.80	106153.29	price does not include shipping

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8	Paint	715	PC-118 Polyurethane Curing Solution		52	111.30	kit	6823.00	47922.02
			Crown Metro Aerospace						status quo alternative has been replaced by the 656-58 series; price applies to blue, green & brown paints and includes one gallon of curing solution and one gallon of catalyst; does not include shipping
			MIL-L-81352, Lacquer, Acrylic		43	27.86	gallon	3343.10	23481.30
			So-Sure White 17875 (144-170)		53	3.65	pint	3649.00	25629.12
			TT-L-32A, AM-1 TY II, Blue 1510		46	33.13	gallon	1420.60	28941.45
			Enmar		35/44	19.00	kit	4847.60	price includes shipping
			Defl, Inc.		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 37038, Parts 1&2		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 37038, Parts 1&2		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant		41	55.53	box	4215.40	price applies to a two quart kit; shipping included
			Eco-Sure Brown 30117		40	50.88	box	4587.40	price applies to a two quart kit; shipping included
			LHB Industries		41	55.53	box	4587.40	price applies to a two quart kit; shipping included
			Polyurethane High Solids, Black 37038, Parts 1&2		38/60	72.63	kit	4502.80	price applies to a two quart kit; shipping included
			Dexter Coatings		42/43	69.65	kit	4353.28	price applies to a two quart kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2		42/43	69.65	kit	4353.28	price applies to a two quart kit; shipping included
			Courtauld's Aerospace		42	25.84	gallon	3280.60	price includes shipping
			TT-L-20A Lacquer, White 37875		29	28.56	gallon	3694.60	price includes shipping
			Heat Resisting EN-TT-E-496A 14391		27	2.23	pint	2340.80	price includes shipping
			A-58A Enamel (TT-E-516A)		27	2.23	pint	2340.80	price includes shipping
			Warren Paint & Color Company		27	2.23	pint	2340.80	price includes shipping
			Koppers Company		27	2.23	pint	2340.80	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010		41	20.55	gallon	2639.80	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197		50	41.32	gallon	5132.20	price includes shipping
			TT-E-489H Low VOC (15182 Blue)		31	21.93	gallon	2931.64	price includes shipping
			Kop-Coat Inc.		36/52	78.08	kit	4862.72	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 17038, Parts 1&2		41	6.42	pint	6308.20	price includes shipping
			Eco-Sure Yellow 23538 Enamel		49	50.88	box	4244.68	price includes shipping
			LHB Industries		49	50.88	box	4244.68	price includes shipping
			Cardinal Industrial Finishes		46/43	112.50	kit	6799.00	price includes shipping
			A-4300-33538 Aerosol Flat Yellow		59/54	129.02	kit	62074.60	based on a min order of 12-2 gallon kits; does not include shipping
			02-Y-40 30K Epoxy 13538 Comp A & B		43	124.74	gallon	15113.80	price does not include shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197		59/54	129.02	kit	62074.60	price does not include shipping
			TT-E-489H Low VOC (15182 Blue)		43	124.74	gallon	15113.80	price does not include shipping
			Super Desothane 828X310 Black 37038		43	124.74	gallon	15113.80	price does not include shipping
			DeSoto, Inc.						
			Discontinued						discontinued product; price unknown
8	Paint	715	Aliphatic Polyurethane & Curexant						
			Discontinued						discontinued product; price unknown
8	Paint	715	TY-1 #20113 Brown Air Dry Enamel		41	50.50	gallon	6816.00	47872.86
			Randolph Products Co.						based on a min order of 4 gallons; min invoice is \$100; shipping for each box (4 gallons) is \$20, plus \$11 hazmat fee
			MIL-L-81352, Lacquer, Acrylic		43	27.86	gallon	3343.10	23481.30
			So-Sure White 17875 (144-170)		53	3.65	pint	3649.00	25629.12
			TT-L-32A, AM-1 TY II, Blue 1510		46	33.13	gallon	1420.60	28941.45
			Enmar		35/44	19.00	kit	4847.60	price includes shipping
			Defl, Inc.		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 37038, Parts 1&2		40/36	75.34	kit	4720.40	price applies to a two quart kit; shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant		41	55.53	box	4215.40	price applies to a two quart kit; shipping included
			Eco-Sure Brown 30117		40	50.88	box	4587.40	price applies to a two quart kit; shipping included
			LHB Industries		41	55.53	box	4587.40	price applies to a two quart kit; shipping included
			Polyurethane High Solids, Black 37038, Parts 1&2		38/60	72.63	kit	4502.80	price applies to a two quart kit; shipping included
			Dexter Coatings		42/43	69.65	kit	4353.28	price applies to a two quart kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2		42/43	69.65	kit	4353.28	price applies to a two quart kit; shipping included
			Courtauld's Aerospace		42	25.84	gallon	3280.60	price includes shipping
			TT-L-20A Lacquer, White 37875		29	28.56	gallon	3694.60	price includes shipping
			Heat Resisting EN-TT-E-496A 14391		27	2.23	pint	2340.80	price includes shipping
			A-58A Enamel (TT-E-516A)		27	2.23	pint	2340.80	price includes shipping
			Warren Paint & Color Company		27	2.23	pint	2340.80	price includes shipping
			Koppers Company		27	2.23	pint	2340.80	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010		41	20.55	gallon	2639.80	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197		50	41.32	gallon	5132.20	price includes shipping
			TT-E-489H Low VOC (15182 Blue)		31	21.93	gallon	2931.64	price includes shipping
			Kop-Coat Inc.		36/52	78.08	kit	4862.72	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 17038, Parts 1&2		41	6.42	pint	6308.20	price includes shipping
			Eco-Sure Yellow 23538 Enamel		49	50.88	box	4244.68	price includes shipping
			LHB Industries		49	50.88	box	4244.68	price includes shipping
			Cardinal Industrial Finishes		46/43	112.50	kit	6799.00	price includes shipping
			A-4300-33538 Aerosol Flat Yellow		59/54	129.02	kit	62074.60	based on a min order of 12-2 gallon kits; does not include shipping
			02-Y-40 30K Epoxy 13538 Comp A & B		43	124.74	gallon	15113.80	price does not include shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197		59/54	129.02	kit	62074.60	price does not include shipping
			TT-E-489H Low VOC (15182 Blue)		43	124.74	gallon	15113.80	price does not include shipping
			Super Desothane 828X310 Black 37038		43	124.74	gallon	15113.80	price does not include shipping
			DeSoto, Inc.						

List of Pollution Prevention Alternatives Identified for Indian Head Division, Naval Surface Warfare Center

HAZARDOUS MATERIAL	BLDG.	PRODUCT	MANUFACTURER	HMS	Price (\$)	Per Unit	Annual Cost (\$)	Discount Cost (\$)	NOTES
8	Paint	715	Epoxycatalyst						
			Randomolph Products Co.	43	126.00	kit	8316.00	58408.26	parts A and B each are 1 gallon containers; min invoice is \$100; shipping for each box (4 gallons) is \$20, plus \$11 hazmat fee
			Lenmar Lacquers, Inc.	43	27.86	gallon	3343.10	23481.30	price includes shipping
			LHB Industries	53	3.65	pint	3649.00	25629.12	price includes shipping
			Enmar	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Deft, Inc.	35/44	19.00	kit	4847.60	33154.20	price applies to a two quart kit; shipping included
			Deft, Inc.	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
			LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
			Courtauld Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
			Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
			Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
			Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
			Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
			Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
			LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
			Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
			Deft, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			Courtauld Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
			DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping

8	Paint	715	Catalyst/Aliphatic Isocyanate Reactant	Randomolph Products Co.	53	150.40	kit	9866.40	69297.65	parts A and B each are 1 gallon containers; min invoice is \$100; shipping for each box (4 gallons) is \$20, plus \$11 hazmat fee
			MIL-L-81352, Lacquer, Acrylic	Lenmar Lacquers, Inc.	43	27.86	gallon	3343.10	23481.30	price includes shipping
			So-Sure White 17875 (144-170)	LHB Industries	53	3.65	pint	3649.00	25629.12	price includes shipping
			TT-L-32A, AM-1 TY II, Blue 1510	Enmar	46	33.13	gallon	4120.60	28941.45	price includes shipping
			Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	35/44	19.00	kit	4847.60	34047.60	price applies to a two quart kit; shipping included
			Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	40/36	75.34	kit	4720.40	33154.20	price applies to a two gallon kit; shipping included
			Eco-Sure Blue 25042 Semigloss VOC-Compliant	LHB Industries	40	50.88	box	4215.40	29607.28	box contains 12 aerosol cans; shipping included
			Eco-Sure Brown 30117	LHB Industries	41	55.53	box	4587.40	32220.86	box contains 12 aerosol cans; shipping included
			Polyurethane High Solids, Black 37038, Pts 1&2	Dexter Coatings	38/60	72.63	kit	4502.80	31625.87	price applies to a two gallon kit; shipping included
			Polyurethane Coating, Green 24052, Parts 1&2	Courtaulds Aerospace	42/43	69.65	kit	4353.28	30575.70	price applies to a two gallon kit; shipping included
			TT-L-20A Lacquer, White 37875	Kop-Coat Inc.	42	25.84	gallon	3280.60	23041.62	price includes shipping
			Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	28.56	gallon	3694.60	25949.39	price includes shipping
			A-58A Enamel (TT-E-516A)	Koppers Company	27	2.23	pint	2340.80	16440.84	price includes shipping
			Enamel Alkyd Gloss Brown 10076 ID 742010	Pratt and Lambert	41	20.55	gallon	2639.80	18540.90	price includes shipping
			Enamel, Alkyd, Gloss Low VOC Orange 12197	Pratt and Lambert	50	41.32	gallon	5132.20	36046.52	price includes shipping
			TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21.93	gallon	2931.64	20590.67	price includes shipping
			Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	36/52	78.08	kit	4862.72	34153.80	price applies to a two gallon kit; shipping included
			Eco-Sure Yellow 23538 Enamel	LHB Industries	41	6.42	pint	6308.20	44306.27	price includes shipping
			A-4300-33538 Aerosol Flat Yellow	Cardinal Industrial Finishes	49	50.88	box	4244.68	29812.93	box contains 12 aerosol cans; shipping included
			02-Y-40 3GK Epoxy 13538 Comp A & B	Deft, Inc.	46/43	112.50	kit	6799.00	47753.46	based on a min order of 12-2 gallon kits; does not include shipping
			MIL-P-23377F Epoxy TY ICI 2 513K419 Pt 1&2	Courtaulds Aerospace	59/54	129.02	kit	62074.60	435987.16	price applies to a two pint kit; shipping is not included
			Super Desolithe 828X310 Black 37038	DeSoto, Inc.	43	124.74	gallon	15113.80	106153.29	price does not include shipping

8	Paint	715	KEM TRANSPORT Synthetic enamel	The Sherwin-Williams Co.					product is a custom order, more information is needed for pricing data
			Custom-made						

APPENDIX E

THE POLLUTION PREVENTION PRIORITY NUMBER ANALYSIS

HMSF CHANGE	TABLE A INVESTMENT COST FACTOR														
	0-5	6-10	11-25	26-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	401-450	451-500	500+	
46+ 41-45 36-40 31-35 26-30 21-25 16-20 11-15 6-10	10	10	10	20	30	30	40	50	60	70	80	80	90	90	
	10	10	10	20	30	30	40	50	60	70	80	80	90	90	
	10	10	10	20	30	40	40	50	60	70	80	80	90	90	
	20	20	20	20	30	40	50	60	60	70	80	90	90	100	
	20	30	30	30	30	40	50	60	70	70	80	90	90	100	
	20	30	30	30	40	40	50	60	70	80	80	90	100	100	
	30	30	30	30	40	50	50	60	70	80	90	90	100	100	
	30	30	40	40	40	50	50	60	70	80	90	100	100	110	
	30	30	40	40	50	50	60	60	70	80	90	100	110	110	
	30	40	40	50	50	50	60	70	70	80	90	100	110	110	
0-5	0-5	6-10	11-25	26-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	401-450	451-500	500+	
INVESTMENT COST IN \$K (ROUNDED TO NEAREST \$1K)															

TABLE B ADJUSTMENT FACTORS FOR INCREASES IN UAC/WEIGHT/POPULATION											
% INCREASE	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	>50
ADJ. FACTOR	1.0	1.05	1.1	1.15	1.2	1.25	1.3	1.35	1.4	1.45	2

TABLE C ADJUSTMENT FACTORS FOR DECREASES IN UAC/WEIGHT/POPULATION											
% DECREASE	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	>75
ADJ. FACTOR	1.0	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	.1

ICF = Investment Cost Factor (from Table A)
 UACF = Uniform Annual Cost Factor (from Table B or C)
 WF = Weight Factor (from Table B or C)
 PF = Population Factor (from Table B or C)

Figure E-1. Charts For Calculating The Pollution Prevention Priority Number (PPPN)

Hazardous Material		BLDG.	Product		MANUFACTURER		UAC	UAC ² - UAC ¹		% change *		UACF
1	Silicone Primer	292	Status Quo	SS-4004 Silicone Primer	General Electric Company		(\$)	(\$)				
			Proposed	1200 RTV Primer	Dow Corning Corp.		646.09	-12.09	-1.91	1.05		
			Proposed	All Purpose Primer	Seymour of Sycamore, Inc.		39.20	594.80	93.82	0.10		
2	Release Agent	292	Status Quo	MS-143 Fluorocarbon Release Agent ~	Miller-Stephenson Chemical		612.80					
			Proposed	MS-143N Release Agent/Dry Lubricant	Miller-Stephenson Chemical		203.60	409.20	66.78	0.25		
			Proposed	MS-122N/CO2 TFE Release Agent	Miller-Stephenson Chemical		164.20	448.60	73.20	0.25		
			Proposed	Spectrum Release W.B.	Edoco		214.84	397.96	64.94	0.25		
			Proposed	Release #1 VOC	Edoco		87.62	525.18	85.70	0.10		
			Proposed	Release All Safelease 30	Airtech International Inc.		384.74	228.06	37.22	0.60		
3	Adhesives	720	Status Quo	A-12 Parts A and B Adhesive	Armstrong Products Co.		1904.50					
			Proposed	A-1177-B-1 Epoxy Adhesive Parts A & B	B.F. Goodrich		407.80	1496.70	78.59	0.10		
			Proposed	PSI-322 Clear & FD Clear Epoxy Gel Parts A & B	Polymetric Systems, Inc.		1164.90	739.60	38.83	0.60		
			Proposed	PSI-367 Parts A & B Epoxy Paste	Polymetric Systems, Inc.		317.90	1586.60	83.31	0.10		
4	Acetone	720, 160	Status Quo	Acetone ~	Mallinckrodt Chemical, Inc.		586.45					
			Proposed	Finger Lakes ID/4R, P/N-FLSC-98	Finger Lakes Chemical		906.25	-319.80	-54.53	2.00		
			Proposed	3-D Degreaser, P/N-FLSC-97	Finger Lakes Chemical		775.45	-189.00	-32.23	1.35		
			Proposed	Nature-Sol 100	Burlin and Company, Inc.		121.30	465.15	79.32	0.25		
			Proposed	Safety Prep, FD 080	Inland Technology, Inc.		579.95	6.50	1.11	0.95		
4	Acetone	1040, 715	Status Quo	Acetone ~	Mallinckrodt Chemical, Inc.		4904.80					
			Proposed	Finger Lakes ID/4R, P/N-FLSC-98	Finger Lakes Chemical		8095.00	-3190.20	-65.04	2.00		
			Proposed	3-D Degreaser, P/N-FLSC-97	Finger Lakes Chemical		6898.05	-1993.25	-40.64	1.40		
			Proposed	Nature-Sol 100	Burlin and Company, Inc.		771.50	4133.30	84.27	0.10		
			Proposed	Safety Prep, FD 080	Inland Technology, Inc.		5069.80	-165.00	-3.36	1.05		
5	Toluene	1190, 1041	Status Quo	Toluene (Cleaning of Mix Bowl/Cast Tooling) ~	Ashland Chemical		3318.08					
			Proposed	Klean-Strip Mil-Klean	W.M. Barr & Company, Inc.		8013.40	-4695.32	-141.51	2.00		
			Proposed	Hurrisafe 9040 Special Formula	PCI of America		18898.92	-15580.84	-469.57	2.00		
			Proposed	Safety Prep, FD 080	Inland Technology, Inc.		14969.80	-11651.72	-351.16	2.00		
5	Toluene	1190	Status Quo	Toluene (Daily Cleanup of Mix Blades) ~	Ashland Chemical		82.66					
			Proposed	Hurrisafe 9040 Special Formula	PCI of America		152.72	-70.06	-84.76	2.00		
			Proposed	FC056 Citra Safe	Inland Technology, Inc.		500.05	-417.39	-504.95	2.00		
			Proposed	Safety Prep, FD 080	Inland Technology, Inc.		149.95	-67.29	-81.41	2.00		
6	Primer	715	Status Quo	#1001 Zinc Primer Liquid ~	PPG Industries, Inc.		2846.20					
			Proposed	TT-E-545C Alkyd Primer	Davlin Paint Company, Inc.		1830.00	1016.20	35.70	0.65		
			Proposed	Primer Coating, Zinc Chromate Comp L	Praatt and Lambert		2691.40	154.80	5.44	0.95		
			Proposed	TT-P-1757 Zinc Chromate Primer (Yellow)	Kop-Coat Inc.		2344.60	501.60	17.62	0.80		
			Proposed	Lacquer Primer MIL-P-7962	Randolph Products Company		3711.40	-865.20	-30.40	1.30		

UAC = Uniform Annual Cost
UAC² = Status Quo UAC
UAC¹ = Proposed UAC
~ = not a potential alternative
* = negative numbers mean price increases

Figure E-2. Uniform Annual Cost Factor (UACF)

Hazardous Material		BLDG.	Product		MANUFACTURER	UAC	UAC ² - UAC ¹	% change *	UACF
7	Paint Thinner	715	Status Quo	MIL-T-81772B Solvent Thinner ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	DeSoto, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	6652.60	6094.80	91.62	0.10
			Proposed			557.80	5822.88	87.53	0.10
			Proposed			529.00	6123.60	92.05	0.10
			Proposed			730.60	5922.00	89.02	0.10
7	Paint Thinner	715	Status Quo	CHEMGLAZE 9951 Thinner ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	Lord Corp Chemical Products Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	2585.84	2028.04	78.43	0.10
			Proposed			557.80	1756.12	67.91	0.25
			Proposed			529.00	2056.84	79.54	0.10
			Proposed			730.60	1855.24	71.75	0.25
7	Paint Thinner	715	Status Quo	Thinner Synthetic Resin Enamel ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H	CSD, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr	765.40	207.60	27.12	0.70
			Proposed			557.80	-64.32	-8.40	1.10
			Proposed			529.00	236.40	30.89	0.70
7	Paint Thinner	715	Status Quo	Mineral Spirits TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	CSD, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	476.44	-81.36	-17.08	1.20
			Proposed			557.80	-353.28	-74.15	2.00
			Proposed			529.00	-52.56	-11.03	1.15
			Proposed			730.60	-254.16	-53.35	2.00
8	Paint	715	Status Quo	Krylon High Heat Spray Paint ~ Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Parts 1&2	Division of Borden Warren Paint & Color Company Koppers Company Kop-Coat Inc. Dexter Coatings	3697.00	2.40	0.06	0.95
			Proposed			3694.60	1356.20	36.68	0.60
			Proposed			2931.64	765.36	20.70	0.75
			Proposed			4862.72	-1165.72	-31.53	1.35
8	Paint	715	Status Quo	Krylon 1402 High Heat Alum Paint ~ Polyurethane Coating, Green 24052, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue)	Division of Borden Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc.	3687.00	-1160.60	-31.48	1.35
			Proposed			4847.60	-7.60	-0.21	1.00
			Proposed			2340.80	1346.20	36.51	0.60
			Proposed			2931.64	755.36	20.49	0.80
8	Paint	715	Status Quo	Epoxy, MIL-P-85582B, TY 1 C1 C1 Polyurethane Coating, Green 24052, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue)	Deft, Inc. Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc.	8141.80	3294.20	40.46	0.60
			Proposed			4847.60	4447.20	54.62	0.25
			Proposed			2340.80	5801.00	71.25	0.25
			Proposed			2931.64	5210.16	63.99	0.25

Figure E-2. Uniform Annual Cost Factor (UACF)

UAC = Uniform Annual Cost
UAC² = Status Quo UAC
UAC¹ = Proposed UAC
~ = not a potential alternative
* = negative numbers mean price increases

Hazardous Material		BLDG.	Product		MANUFACTURER		UAC	UAC ² - UAC ¹	% change *	UACF
8	Paint	715	Status Quo	Aliphatic Isocyanate ~	Deft, Inc.	Deft, Inc.	7116.52			
8	Paint	715	Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	2268.92	31.88	0.65
			Proposed	Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	Deft, Inc.	4820.40	2296.12	32.26	0.65
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	3421.92	48.08	0.50
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	4775.72	67.11	0.25
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	4184.88	58.81	0.25
8	Paint	715	Proposed	Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	Dexter Coatings	4862.72	2253.80	31.67	0.65
			Status Quo	Polyurethane, MIL-C-85285B, 17925 TY I ~	Deft, Inc.	Deft, Inc.	3905.80			
			Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	-941.80	-24.11	1.25
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	211.20	5.41	0.95
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	1565.00	40.07	0.60
8	Paint	715	Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	974.16	24.94	0.75
			Status Quo	Pigmented Polymer ~	Chemray Coatings Corp	Chemray Coatings Corp	2663.32			
			Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	-2184.28	-82.01	2.00
			Proposed	Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	Deft, Inc.	4720.40	-2057.08	-77.24	2.00
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	-1031.28	-38.72	1.40
8	Paint	715	Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	322.52	12.11	0.85
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	-268.32	-10.07	1.10
			Status Quo	So-Sure Lacquer ~	LHB Industries	LHB Industries	2045.80			
			Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	-2801.80	-136.95	2.00
			Proposed	Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	Deft, Inc.	4720.40	-2674.60	-130.74	2.00
8	Paint	715	Proposed	Polyurethane High Solids, Black 37038, Parts 1&2	Dexter Coatings	Dexter Coatings	4502.80	-2457.00	-120.10	2.00
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	-1648.80	-80.59	2.00
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	-295.00	-14.42	1.15
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	-885.84	-43.30	1.45
			Proposed	Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	Dexter Coatings	4862.72	-2816.92	-137.69	2.00
8	Paint	715	Status Quo	So-Sure Blue 35109 (54-350)P	LHB Industries	LHB Industries	2122.60			
			Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	-2725.00	-128.38	2.00
			Proposed	Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	Deft, Inc.	4820.40	-2697.80	-127.10	2.00
			Proposed	Polyurethane High Solids, Black 37038, Parts 1&2	Dexter Coatings	Dexter Coatings	4502.80	-2380.20	-112.14	2.00
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	-1572.00	-74.06	2.00
8	Paint	715	Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	-218.20	-10.28	1.10
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	-809.04	-38.12	1.40
			Proposed	Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	Dexter Coatings	4862.72	-2740.12	-129.09	2.00
			Status Quo	So-Sure Yellow 23538 (114-230)G ~	LHB Industries	LHB Industries	2333.80			
			Proposed	Polyurethane Coating, Green 24052, Parts 1&2	Deft, Inc.	Deft, Inc.	4847.60	-2513.80	-107.71	2.00
8	Paint	715	Proposed	Polyurethane Coating, Black 37038, Parts 1&2	Deft, Inc.	Deft, Inc.	4720.40	-2386.60	-102.26	2.00
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	Warren Paint & Color Company	3694.60	-1360.80	-58.31	2.00
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	Koppers Company	2340.80	-7.00	-0.30	0.00
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	Kop-Coat Inc.	2931.64	-597.84	-25.62	1.30
			Proposed	Polyurethane Coating, Black 17038, Parts 1&2	Dexter Coatings	Dexter Coatings	4862.72	-2528.92	-108.36	2.00

UAC = Uniform Annual Cost
UAC² = Status Quo UAC
UAC¹ = Proposed UAC
~ = not a potential alternative
* = negative numbers mean price increases

Figure E-2. Uniform Annual Cost Factor (UACF)

Hazardous Material	BLDG.	Product	MANUFACTURER	UAC (\$)	UAC ² - UAC ¹ (\$)	% change *	UACF
8	Paint	715	Metallic Topcoats Discontinued				
8	Paint	715	HARD HAT Fluorescent Topcoats ~ Polyurethane Coating, Green 24052, Parts 1&2 Polyurethane High Solids, Black 37038, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Discontinued				
8	Paint	715	Rust-Oleum Corporation Deft, Inc. Dexter Coatings Warren Paint & Color Company Koppers Company Kop-Coat Inc.	7691.00 4847.60 4720.40 3694.60 2340.80 2931.64	2843.40 2970.60 3996.40 5350.20 4759.36	36.97 38.62 51.96 69.56 61.88	0.60 0.60 0.25 0.25 0.25
8	Paint	715	PC-118 Polyurethane Curing Solution ~ Polyurethane Coating, Green 24052, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Parts 1&2	6823.00 4847.60 3694.60 2340.80 2931.64 4862.72	1975.40 3128.40 4482.20 3891.36 1960.28	28.95 45.85 65.69 57.03 28.73	0.70 0.80 0.25 0.25 0.70
8	Paint	715	Aliphatic Polyurethane & Coreactant Discontinued				
8	Paint	715	Randolph Products Co.				
8	Paint	715	TY 1 #20117 Brown Air Dry Enamel ~ Polyurethane Coating, Green 24052, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Parts 1&2	6816.00 4847.60 3694.60 2340.80 2931.64 4862.72	1968.40 3121.40 4475.20 3884.36 1953.28	28.88 45.80 65.66 56.99 28.66	0.70 0.80 0.25 0.25 0.70
8	Paint	715	Epoxy Catalyst ~ Polyurethane Coating, Green 24052, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Parts 1&2	8316.00 4847.60 3694.60 2340.80 2931.64 4862.72	3468.40 4621.40 5975.20 5384.36 3453.28	41.71 55.57 71.85 64.75 41.53	0.55 0.25 0.25 0.25 0.55
8	Paint	715	Catalyst Aliphatic Isocyanate Reactant ~ Polyurethane Coating, Green 24052, Parts 1&2 Polyurethane Coating, Black 37038, Parts 1&2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Parts 1&2	9635.00 4847.60 4720.40 3694.60 2340.80 2931.64 4862.72	4787.40 4914.60 5940.40 7294.20 6703.36 4772.28	49.69 51.01 61.65 75.71 69.57 49.53	0.50 0.25 0.25 0.10 0.25 0.50
8	Paint	715	KEM TRANSPORT Synthetic Enamel Custom-made				
8	Paint	715	The Sherwin Williams Co.				

Figure E-2. Uniform Annual Cost Factor (UACF)

UAC = Uniform Annual Cost
UAC² = Status Quo UAC
UAC¹ = Proposed UAC
~ = not a potential alternative
* = negative numbers mean price increases

Hazardous Material	Bldg.	Alternative	Product	Manufacturer	HMSF	HMSF ² - HMSF ¹	Initial Cost	ICF
1	Silicone Primer	292	Status Quo Proposed Proposed	SS-4004 Silicone Primer 1200 RTV Primer All Purpose Primer	General Electric Company Dow Corning Corp. Seymour of Sycamore, Inc.	18 37 36	-19 -18	0.00 0.00 40
2	Release Agent	292	Status Quo Proposed Proposed Proposed Proposed	MS-143 Fluorocarbon Release Agent ~ MS-143N Release Agent/Dry Lubricant MS-122N/CO2 TFE Release Agent Spectrum Release W.B. Release #1 VOC Release All Safelease 30	Miller-Stephenson Chemical Miller-Stephenson Chemical Miller-Stephenson Chemical Edoco Edoco Airtech International Inc.	46 37 37 20 23 21	9 9 26 23 25	0.00 0.00 0.00 0.00 0.00 20
3	Adhesives	720	Status Quo Proposed Proposed Proposed Proposed Proposed	A-12 Part A Adhesive A-12 Part B Adhesive A-1177-B-1 Epoxy Adhesive Part A A-1177-B-1 Epoxy Adhesive Part B PSI-322 Clear & FD Clear Epoxy Gel Part A PSI-322 Clear & FD Clear Epoxy Gel Part B PSI-367 Parts A Epoxy Paste PSI-367 Parts B Epoxy Paste	Armstrong Products Co. Armstrong Products Co. B.F. Goodrich B.F. Goodrich Polymeric Systems, Inc. Polymeric Systems, Inc. Polymeric Systems, Inc.	15 15 14 17 18 20 14 14	1 -2 -3 -5 1 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 30
4	Acetone	720, 160	Status Quo Proposed Proposed Proposed	Acetone ~ Finger Lakes ID/4R, P/N-FLSC-98 3-D Degreaser, P/N-FLSC-97 Nature-Sol 100 Safety Prep, FD 080	Mallinckrodt Chemical, Inc. Finger Lakes Chemical Finger Lakes Chemical Burlin and Company, Inc. Inland Technology, Inc.	56 23 19 28 17	33 37 28 39	0.00 0.00 0.00 0.00 0.00 10
4	Acetone	1040, 715	Status Quo Proposed Proposed Proposed	Acetone ~ Finger Lakes ID/4R, P/N-FLSC-98 3-D Degreaser, P/N-FLSC-97 Nature-Sol 100 Safety Prep, FD 080	Mallinckrodt Chemical, Inc. Finger Lakes Chemical Finger Lakes Chemical Burlin and Company, Inc. Inland Technology, Inc.	56 23 19 28 17	33 37 28 39	0.00 0.00 0.00 0.00 0.00 10
5	Toluene	1190, 1041	Status Quo Proposed Proposed Proposed	Toluene (Cleaning of Mix Bowl/Cast Tooling) ~ Klean-Strip Mil-Klean Hurrisafe 9040 Special Formula Safety Prep, FD 080	Ashland Chemical W.M. Barr & Company, Inc. PCI of America Inland Technology, Inc.	71 28 15 17	43 56 54	0.00 0.00 0.00 0.00 0.00 10
5	Toluene	1190	Status Quo Proposed Proposed Proposed	Toluene (Daily Cleanup of Mix Blades) ~ Hurrisafe 9040 Special Formula FC056 Citra Safe Safety Prep, FD 080	Ashland Chemical PCI of America Inland Technology, Inc. Inland Technology, Inc.	71 15 24 17	56 47 54	0.00 0.00 0.00 0.00 0.00 10

HMSF = Hazardous Material Selection Factor
HMSF² = Status Quo Alternative HMSF
HMSF = Pollution Prevention Alternative HMSF

Figure E-3. Investment Cost Factor (ICF)

Hazardous Material	Bldg.	Alternative	Product	Manufacturer	HMSF	HMSF ² - HMSF ¹	Initial Cost	ICF
6	Primer	715	Status Quo	#1001 Zinc Primer Liquid ~ TT-E-545C Alkyd Primer Primer Coating, Zinc Chromate Comp L TT-P-1757 Zinc Chromate Primer (Yellow) Laquer Primer MIL-P-7962	PPG Industries, Inc. Davlin Paint Company, Inc. Pratt and Lambert Kop-Coat Inc. Randolph Products Company	48		
			Proposed		18	30	0.00	20
			Proposed		34	14	0.00	30
			Proposed		35	13	0.00	30
			Proposed		31	17	0.00	30
7	Paint Thinner	715	Status Quo	MIL-T-81772B Solvent Thinner ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	DeSoto, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	50		
			Proposed		23	27	0.00	20
			Proposed		39	11	0.00	30
			Proposed		40	10	0.00	30
			Proposed		41	9	0.00	30
7	Paint Thinner	715	Status Quo	CHEMGLAZE 9951 Thinner ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	Lord Corp Chemical Products Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	45		
			Proposed		23	22	0.00	20
			Proposed		39	6	0.00	30
			Proposed		40	5	0.00	30
			Proposed		41	4	0.00	30
7	Paint Thinner	715	Status Quo	Thinner Synthetic Resin Enamel ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H	CSD, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr	41		
			Proposed		23	18	0.00	30
			Proposed		39	2	0.00	30
			Proposed		40	1	0.00	30
7	Paint Thinner	715	Status Quo	Mineral Spirits TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	CSD, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	45		
			Proposed		23	22	0.00	20
			Proposed		39	6	0.00	30
			Proposed		40	5	0.00	30
			Proposed		41	4	0.00	30
8	Paint	715	Status Quo	Krylon High Heat Spray Paint ~ Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Part 1 Polyurethane Coating, Black 17038, Part 2	Division of Borden Warren Paint & Color Company Koppers Company Kop-Coat Inc. Dexter Coatings Dexter Coatings	38		
			Proposed		29	9	0.00	30
			Proposed		27	11	0.00	30
			Proposed		31	7	0.00	30
			Proposed		36	2	0.00	30
			Proposed		52	-14	0.00	40
8	Paint	715	Status Quo	Krylon 1402 High Heat Alum Paint ~ Polyurethane Coating, Green 24052, Part 1 Polyurethane Coating, Green 24052, Part 2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue)	Division of Borden Deft, Inc. Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc.	35		
			Proposed		35	0	0.00	30
			Proposed		44	-9	0.00	40
			Proposed		29	6	0.00	30
			Proposed		27	8	0.00	30
			Proposed		31	4	0.00	30

Figure E-3. Investment Cost Factor (ICF)

HMSF = Hazardous Material Selection Factor
HMSF² = Status Quo Alternative HMSF
HMSF = Pollution Prevention Alternative HMSF

Hazardous Material	Bldg.	Alternative	Product	Manufacturer	HMSF	HMSF ² - HMSF ¹	Initial Cost	ICF
8	Paint	715	Epoxy, MIL-P-85582B, TY 1 C1C1	Deft, Inc.	34			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	-1	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	-10	0.00	40
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	5	0.00	30
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	7	0.00	30
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	3	0.00	30
8	Paint	715	Aliphatic Isocyanate ~	Deft, Inc.	46			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	11	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	2	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 1	Deft, Inc.	40	6	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 2	Deft, Inc.	36	10	0.00	30
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	17	0.00	30
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	19	0.00	30
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	15	0.00	30
		Proposed	Polyurethane Coating, Black 17038, Part 1	Dexter Coatings	36	10	0.00	30
		Proposed	Polyurethane Coating, Black 17038, Part 2	Dexter Coatings	52	-6	0.00	40
8	Paint	715	Polyurethane, MIL-C-85285B, 17925 TY 1 ~	Deft, Inc.	34			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	-1	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	-10	0.00	40
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	5	0.00	30
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	7	0.00	30
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	3	0.00	30
8	Paint	715	Pigmented Polymer ~	Chemray Coatings Corp	41			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	6	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	-3	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 1	Deft, Inc.	40	1	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 2	Deft, Inc.	36	5	0.00	30
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	12	0.00	30
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	14	0.00	30
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	10	0.00	30
8	Paint	715	So-Sure Lacquer ~	LHB Industries	58			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	23	0.00	20
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	14	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 1	Deft, Inc.	40	18	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 2	Deft, Inc.	36	22	0.00	20
		Proposed	Polyurethane High Solids, Black 37038, Part 1	Dexter Coatings	38	20	0.00	20
		Proposed	Polyurethane High Solids, Black 37038, Part 2	Dexter Coatings	60	-2	0.00	30
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	29	0.00	20
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	31	0.00	20
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	27	0.00	20
		Proposed	Polyurethane Coating, Black 17038, Part 1	Dexter Coatings	36	22	0.00	20
		Proposed	Polyurethane Coating, Black 17038, Part 2	Dexter Coatings	52	6	0.00	30

HMSF = Hazardous Material Selection Factor
HMSF² = Status Quo Alternative HMSF
HMSF = Pollution Prevention Alternative HMSF

Figure E-3. Investment Cost Factor (ICF)

Hazardous Material	Bldg.	Alternative	Product	Manufacturer	HMSF	HMSF ² - HMSF ¹	Initial Cost	ICF
8	Paint	715	So-Sure Blue 35109 (S4-350)P	LHB Industries	51			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	16	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	7	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 1	Deft, Inc.	40	11	0.00	30
		Proposed	Polyurethane Coating, Black 37038, Part 2	Deft, Inc.	36	15	0.00	30
		Proposed	Polyurethane High Solids, Black 37038, Part 1	Dexter Coatings	38	13	0.00	30
		Proposed	Polyurethane High Solids, Black 37038, Part 2	Dexter Coatings	60	-9	0.00	40
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	22	0.00	20
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	24	0.00	20
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	20	0.00	20
		Proposed	Polyurethane Coating, Black 17038, Part 1	Dexter Coatings	36	15	0.00	30
		Proposed	Polyurethane Coating, Black 17038, Part 2	Dexter Coatings	52	-1	0.00	30
8	Paint	715	So-Sure Yellow 23538 (114-230)G ~	LHB Industries	67			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	32	0.00	20
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	23	0.00	20
		Proposed	Polyurethane Coating, Black 37038, Part 1	Deft, Inc.	40	27	0.00	20
		Proposed	Polyurethane Coating, Black 37038, Part 2	Deft, Inc.	36	31	0.00	20
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	38	0.00	10
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	40	0.00	10
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	36	0.00	10
		Proposed	Polyurethane Coating, Black 17038, Part 1	Dexter Coatings	36	31	0.00	10
		Proposed	Polyurethane Coating, Black 17038, Part 2	Dexter Coatings	52	15	0.00	30
8	Paint	715	Metallic Topcoats Discontinued	Rust-Oleum Corporation				
8	Paint	715	HARD HAT Fluorescent Topcoats ~	Rust-Oleum Corporation	75			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	40	0.00	10
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	31	0.00	20
		Proposed	Polyurethane High Solids, Black 37038, Part 1	Dexter Coatings	38	37	0.00	10
		Proposed	Polyurethane High Solids, Black 37038, Part 2	Dexter Coatings	60	15	0.00	30
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	46	0.00	10
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	48	0.00	10
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	44	0.00	10
8	Paint	715	PC-118 Polyurethane Curing Solution ~	Crown Metro Aerospace	52			
		Proposed	Polyurethane Coating, Green 24052, Part 1	Deft, Inc.	35	17	0.00	30
		Proposed	Polyurethane Coating, Green 24052, Part 2	Deft, Inc.	44	8	0.00	30
		Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	23	0.00	20
		Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	25	0.00	20
		Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	21	0.00	20
		Proposed	Polyurethane Coating, Black 17038, Part 1	Dexter Coatings	36	16	0.00	30
		Proposed	Polyurethane Coating, Black 17038, Part 2	Dexter Coatings	52	0	0.00	30

Figure E-3. Investment Cost Factor (ICF)

HMSF = Hazardous Material Selection Factor
HMSF² = Status Quo Alternative HMSF
HMSF = Pollution Prevention Alternative HMSF

Hazardous Material	Bldg.	Alternative	Product		Manufacturer	HMSF	HMSF ² - HMSF ¹	Initial Cost	ICF
			Status Quo	Aliphatic Polyurethane & Coreactant					
8	Paint	715		Discontinued	Randolph Products Co.				
8	Paint	715	Status Quo	TV 1 #20117 Brown Air Dry Enamel ~ Polyurethane Coating, Green 24052, Part 1 Polyurethane Coating, Green 24052, Part 2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Part 1 Polyurethane Coating, Black 17038, Part 2	Randolph Products Co. Deft, Inc. Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc. Dexter Coatings Dexter Coatings	41 35 44 29 27 31 36 52	6 -3 12 14 10 5 -11	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	30 30 30 30 30 30 30 30
8	Paint	715	Status Quo	Epoxy Catalyst ~ Polyurethane Coating, Green 24052, Part 1 Polyurethane Coating, Green 24052, Part 2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Part 1 Polyurethane Coating, Black 17038, Part 2	Randolph Products Co. Deft, Inc. Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc. Dexter Coatings Dexter Coatings	43 35 44 29 27 31 36 52	8 -1 14 16 12 7 -9	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	30 30 30 30 30 30 30 40
8	Paint	715	Status Quo	Catalyst Aliphatic Isocyanate Reactant ~ Polyurethane Coating, Green 24052, Part 1 Polyurethane Coating, Green 24052, Part 2 Polyurethane Coating, Black 37038, Part 1 Polyurethane Coating, Black 37038, Part 2 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Black 17038, Part 1 Polyurethane Coating, Black 17038, Part 2	Randolph Products Co. Deft, Inc. Deft, Inc. Deft, Inc. Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc. Dexter Coatings Dexter Coatings	53 35 44 40 36 29 27 31 36 52	18 9 13 17 24 26 22 17 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	30 30 30 30 20 20 20 30 30
8	Paint	715	Status Quo	KEM TRANSPORT Synthetic Enamel Custom-made	The Sherwin Williams Co.				

HMSF = Hazardous Material Selection Factor
HMSF² = Status Quo Alternative HMSF
HMSF = Pollution Prevention Alternative HMSF

Figure E-3. Investment Cost Factor (ICF)

Hazardous Material	BLDG.	Product	MANUFACTURER	HMSF	ICF	UACF	WF	PF	PPPN
1	Silicone Primer	292	SS-4004 Silicone Primer All Purpose Primer 1200 RTV Primer	General Electric Company Seymour of Sycamore, Inc. Dow Corning Corp.	18 36 37				
2	Release Agent	292	MS-143 Fluorocarbon Release Agent ~ Release #1 VOC Spectrum Release W.B. MS-143N Release Agent/Dry Lubricant MS-122N/CO2 TFE Release Agent Release All Safelase 30	Miller-Stephenson Chemical Edoco Miller-Stephenson Chemical Miller-Stephenson Chemical Airtect International Inc.	46 23 20 37 37 21				
3	Adhesives	720	A-12 Parts A and B Adhesive A-1177-B-1 Epoxy Adhesive Parts A & B PSI-367 Parts A & B Epoxy Paste PSI-322 Clear & FD Clear Epoxy Gel Parts A &	Armstrong Products Co. B.F. Goodrich Polymeric Systems, Inc. Polymeric Systems, Inc.	15/15 17 14 20				
4	Acetone	720, 160	Acetone ~ Nature-Sol 100 Safety Prep, FD 080 3-D Degreaser, P/N-FLSC-97 Finger Lakes ID/4R, P/N-FLSC-98	Mallinckrodt Chemical, Inc. Burlin and Company, Inc. Inland Technology, Inc. Finger Lakes Chemical Finger Lakes Chemical	56 28 17 19 23				
4	Acetone	1040, 715	Acetone ~ Nature-Sol 100 Safety Prep, FD 080 3-D Degreaser, P/N-FLSC-97 Finger Lakes ID/4R, P/N-FLSC-98	Mallinckrodt Chemical, Inc. Burlin and Company, Inc. Inland Technology, Inc. Finger Lakes Chemical Finger Lakes Chemical	56 28 17 19 23				
5	Toluene	1190, 1041	Toluene (Cleaning of Mix Bowl/Cast Tooling) ~ Klean-Strip Mil-Klean Hurrisafe 9040 Special Formula Safety Prep, FD 080	Ashland Chemical W.M. Barr & Company, Inc. PCI of America Inland Technology, Inc.	71 28 15 17				
5	Toluene	1190	Toluene (Daily Cleanup of Mix Blades) ~ Hurrisafe 9040 Special Formula FC056 Citra Safe Safety Prep, FD 080	Ashland Chemical PCI of America Inland Technology, Inc. Inland Technology, Inc.	71 15 24 17				
6	Primer	715	#1001 Zinc Primer Liquid ~ TT-E-545C Alkyd Primer TT-P-1757 Zinc Chromate Primer (Yellow) Primer Coating, Zinc Chromate Comp L Lacquer Primer MIL-P-7962	PPG Industries, Inc. Davlin Paint Company, Inc. Kop-Coat Inc. Pratt and Lambert Randolph Products Company	48 18 35 34 31				

HMSF=HM Selection Factor
ICF=Investment Cost Factor
UACF=Uniform Annual Cost Factor
PF=Population Factor

Figure E-4. Pollution Prevention Priority Number Analysis - Ranked Alternatives

Hazardous Material	BLDG.	Status Quo	Product	MANUFACTURER	HMSF	ICF	UACF	WF	PF	PPPN
7	Paint Thinner	715	MIL-T-8172B Solvent Thinner ~ TT-T-291E Thinner TL 102 Thinner, Aliphatic, Polyurethane Chevron Thinner 350 H Klean-Strip Mineral Spirits, PN-GMS44	DeSoto, Inc. Atlas Paint and Varnish Company Sikkens Aerospace Finishes Div. Chevron Environmental Health Cntr W.M. Barr and Company, Inc.	50 23 39 40 41	20 30 30 30 30	0.10 0.10 0.10 0.10 0.10	1 1 1 1 1	1 1 1 1 1	2.0 3.0 3.0 3.0 3.0
7	Paint Thinner	715	CHEMGLAZE 9951 Thinner ~ TT-T-291E Thinner Chevron Thinner 350 H TL 102 Thinner, Aliphatic, Polyurethane Klean-Strip Mineral Spirits, PN-GMS44	Lord Corp Chemical Products Atlas Paint and Varnish Company Chevron Environmental Health Cntr Sikkens Aerospace Finishes Div. W.M. Barr and Company, Inc.	45 23 40 39 41	20 30 30 30 30	0.10 0.10 0.25 0.25 0.25	1 1 1 1 1	1 1 1 1 1	2.0 3.0 7.5 7.5 7.5
7	Paint Thinner	715	Thinner Synthetic Resin Enamel ~ TT-T-291E Thinner Chevron Thinner 350 H TL 102 Thinner, Aliphatic, Polyurethane	CSD, Inc. Atlas Paint and Varnish Company Chevron Environmental Health Cntr Sikkens Aerospace Finishes Div.	41 23 40 39	30 30 30 30	0.70 0.70 1.10 1.10	1 1 1 1	1 1 1 1	21.0 21.0 21.0 33.0
7	Paint Thinner	715	Mineral Spirits TT-T-291E Thinner Chevron Thinner 350 H TL 102 Thinner, Aliphatic, Polyurethane Klean-Strip Mineral Spirits, PN-GMS44	CSD, Inc. Atlas Paint and Varnish Company Chevron Environmental Health Cntr Sikkens Aerospace Finishes Div. W.M. Barr and Company, Inc.	45 23 40 39 41	20 30 30 30 30	1.20 1.15 2.00 2.00 2.00	1 1 1 1 1	1 1 1 1 1	24.0 34.5 60.0 60.0 60.0
8	Paint	715	Krylon High Heat Spray Paint ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Black 17038, Parts 1 & 2	Division of Borden Koppers Company Kop-Coat Inc. Warren Paint & Color Company Dexter Coatings	38 27 31 29 52	30 30 30 30 40	0.60 0.75 0.95 1.35 1.35	1 1 1 1 1	1 1 1 1 1	18.0 22.5 28.5 54.0 54.0
8	Paint	715	Krylon 1402 High Heat Alum Paint ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2	Division of Borden Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc.	35 27 31 29 44	30 30 30 30 40	0.60 0.80 1.00 1.35 1.35	1 1 1 1 1	1 1 1 1 1	18.0 24.0 30.0 54.0 54.0
8	Paint	715	Epoxy, MIL-P-85582B, TY I CI C1 Heat Resisting EN-TT-E-496A 14391 A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc. Warren Paint & Color Company Koppers Company Kop-Coat Inc. Deft, Inc.	34 29 27 31 44	30 30 30 30 40	0.25 0.25 0.25 0.60 0.60	1 1 1 1 1	1 1 1 1 1	7.5 7.5 7.5 24.0 24.0

HMSF=HM Selection Factor
ICF=Investment Cost Factor
UACF=Uniform Annual Cost Factor
PF=Population Factor

Figure E-4. Pollution Prevention Priority Number Analysis - Ranked Alternatives

Hazardous Material	BLDG.	Product	MANUFACTURER	HMSF	ICF	UACF	WF	PF	PPPN			
8	Paint	715	Status Quo	Aliphatic Isocyanate ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2 Polyurethane Coating, Black 37038, Parts 1 & 2 Polyurethane Coating, Black 17038, Parts 1 & 2	Deft, Inc. Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc. Deft, Inc. Dexter Coatings	46	30	0.25	1	1	7.5	
		715	Status Quo	Polyurethane, MIL-C-85285B, 17925 TY 1 ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc. Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc.	34	30	0.60	1	1	18.0	
			Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
8	Paint	715	Status Quo	Pigmented Polymer ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2 Polyurethane Coating, Black 37038, Parts 1 & 2	Chenray Coatings Corp Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc. Deft, Inc.	41	30	0.85	1	1	25.5	
		715	Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
8	Paint	715	Status Quo	So-Sure Lacquer ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2 Polyurethane Coating, Black 37038, Parts 1 & 2 Polyurethane High Solids, Black 37038, Pts 1 & 2 Polyurethane Coating, Black 17038, Parts 1 & 2	LHB Industries Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc. Deft, Inc. Dexter Coatings Dexter Coatings	58	20	1.15	1	1	23.0	
		715	Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
8	Paint	715	Status Quo	So-Sure Blue 35109 (54-350)P A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2 Polyurethane Coating, Black 37038, Parts 1 & 2 Polyurethane Coating, Black 17038, Parts 1 & 2	LHB Industries Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc. Deft, Inc. Dexter Coatings Dexter Coatings	51	20	1.10	1	1	22.0	
		715	Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
8	Paint	715	Status Quo	So-Sure Yellow 23538 (114-230)G ~ A-58A Enamel (TT-E-516A) TT-E-489H Low VOC (15182 Blue) Heat Resisting EN-TT-E-496A 14391 Polyurethane Coating, Green 24052, Parts 1 & 2 Polyurethane Coating, Black 37038, Parts 1 & 2 Polyurethane Coating, Black 17038, Parts 1 & 2	LHB Industries Koppers Company Kop-Coat Inc. Warren Paint & Color Company Deft, Inc. Deft, Inc. Dexter Coatings Dexter Coatings	67	10	0.00	1	1	0.0	
		715	Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									
			Proposed									

Figure E-4. Pollution Prevention Priority Number Analysis - Ranked Alternatives

HMSF=HM Selection Factor
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Hazardous Material	BLDG.	Product		MANUFACTURER		HMSF	ICF	UACF	WF	PF	PPPN
		Status Quo	Discontinued	Metallic Topcoats	Rust-Oleum Corporation						
8	Paint	715									
8	Paint	715	Status Quo	HARD IAT Fluorescent Topcoats ~	Rust-Oleum Corporation	75					
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	10	0.25	1	1	2.5
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	10	0.25	1	1	2.5
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	10	0.25	1	1	2.5
			Proposed	Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc.	44	20	0.60	1	1	12.0
8	Paint	715	Status Quo	Polyurethane High Solids, Black 37038, Parts 1 & 2	Dexter Coatings	60	30	0.60	1	1	18.0
			Proposed	PC-118 Polyurethane Curing Solution ~	Crown Metro Aerospace	52					
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	20	0.25	1	1	5.0
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	20	0.25	1	1	5.0
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	20	0.80	1	1	16.0
8	Paint	715	Proposed	Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc.	44	30	0.70	1	1	21.0
			Proposed	Polyurethane Coating, Black 17038, Parts 1 & 2	Dexter Coatings	52	30	0.70	1	1	21.0
8	Paint	715	Status Quo	Aliphatic Polyurethane & Coreactant	Randolph Products Co.						
				Discontinued							
8	Paint	715	Status Quo	TY 1 #20117 Brown Air Dry Enamel ~	Randolph Products Co.	41					
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	30	0.25	1	1	7.5
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	30	0.25	1	1	7.5
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	30	0.50	1	1	15.0
			Proposed	Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc.	44	30	0.70	1	1	21.0
8	Paint	715	Status Quo	Polyurethane Coating, Black 17038, Parts 1 & 2	Dexter Coatings	52	30	0.70	1	1	21.0
8	Paint	715	Status Quo	Epoxy Catalyst ~	Randolph Products Co.	43					
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	30	0.25	1	1	7.5
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	30	0.25	1	1	7.5
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	30	0.25	1	1	7.5
			Proposed	Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc.	44	30	0.55	1	1	16.5
8	Paint	715	Status Quo	Polyurethane Coating, Black 17038, Parts 1 & 2	Dexter Coatings	52	40	0.55	1	1	22.0
8	Paint	715	Status Quo	Catalyst Aliphatic Isocyanate Reactant ~	Randolph Products Co.	53					
			Proposed	A-58A Enamel (TT-E-516A)	Koppers Company	27	20	0.10	1	1	2.0
			Proposed	Heat Resisting EN-TT-E-496A 14391	Warren Paint & Color Company	29	20	0.25	1	1	5.0
			Proposed	TT-E-489H Low VOC (15182 Blue)	Kop-Coat Inc.	31	20	0.25	1	1	5.0
			Proposed	Polyurethane Coating, Black 37038, Parts 1 & 2	Deft, Inc.	40	30	0.25	1	1	7.5
8	Paint	715	Status Quo	Polyurethane Coating, Green 24052, Parts 1 & 2	Deft, Inc.	44	30	0.50	1	1	15.0
			Proposed	Polyurethane Coating, Black 17038, Parts 1 & 2	Dexter Coatings	52	30	0.50	1	1	15.0
8	Paint	715	Status Quo	KEM TRANSPORT Synthetic Enamel	The Sherwin Williams Co.						
				Custom-made							

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